

# Free Relative Clauses in Literary Arabic

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**Abstract** Free relative clauses in Literary Arabic are constructions that share the basic properties of restrictive relative clauses in Literary Arabic, but they lack a lexical head (headless). They are introduced with a relative element (*allaḍi*, *allati*, *mann*, *maa*, *ayyan* ...etc). The relative element is subject to a matching effect, i.e., it should satisfy the selectional restrictions of both the matrix and the embedded predicates in the sentence. The main concern of this paper is to investigate and analyze the distribution and structure of Free Relative clauses in Literary Arabic. This paper will try to answer some questions about Free Relative clauses in Literary Arabic: a) Is the relative element base-generated in its initial position or the result of movement from inside the Free Relative clause? b) Is the initial position of the relative element internal or external to the Free Relative clause? c) Is the Free Relative clause a CP or a DP? This research paper will be conducted within the Minimalist Theory of syntax, especially Chomsky's [1] phasal framework. This paper is descriptive and analytical in nature and the examples cited in it are common knowledge to educated people and researchers and taken mainly from previous studies as indicated in the text.

**Keywords:** *literary Arabic, free relative clauses, restrictive and non- restrictive relative clauses, relative elements and matching effects*

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## 1. Introduction

Relative clauses in Literary Arabic (LA) have received ample attention in the linguistic literature (the interested researcher can check [2-14], among others).

As in English and some other languages, LA possesses three major types of relative clauses: Restrictive relative clauses, Non- restrictive relative clauses and Free relative clauses (FRs). An example of a restrictive relative clause is the following:

- (1) *jaaʔa al-waladu ʔallaḍi qaabla --- al-malika.*  
Came the-boy who met the-king  
'The boy who met the king came.'

It can be realized that *ʔallaḍi* agrees with the antecedent *al-waladu* in number and gender and also it agrees with the gap after *qaabla* and both agree with the antecedent. Because *al-waladu*, the antecedent, is masculine singular *ʔallaḍi* and the gap are masculine and singular. An example of a non-restrictive relative is the following:

- (2) *jaaʔa ʔaxii ʔallaḍi qaabla --- al-malika.*  
Came my-brother who met the- king  
'My brother who met the king came.'

Structurally, both (1) and (2) are the same and the agreement relations are the same (masculine and singular); however, the difference between the two is semantic. The restrictive relative clause in (1) adds important information and restricts the class to which the antecedent *al-waladu* belongs. (2), on other hand, the non-restrictive relative clause does not add any necessary information to

the antecedent *ʔaxii* and does not restrict its class because it is familiar and well-known. One more thing about restrictive and non-restrictive relative clauses is the fact that they play the role of attributive adjectives to their heads.

FRs in LA have received, as far as I know, little attention, if any, in the linguistic literature. As a result of careful and extensive search, I came upon three relevant studies on FRs in LA [11,14,15]. I should mention right at the start that the relative elements used in FRs in LA (*ʔallaḍi*, *ʔatti* and their variants and *mann*, *maa*, *ayyan* ...etc) are considered relative complementizers (RCs).

Alqurashi ([11]: 12 ff) has argued extensively in support of considering these relative elements as relative complementizers. Aoun, et al. [9] also assumed that *ʔallaḍi* is a complementizer, but provided no argument to support their position. Galal [7], following Sauih [2], argues that *ʔallaḍi* is a complementizer and not a relative pronoun. Further, Shaheen ([13]: 89 ff) has argued that (*ʔallaḍi*,) is a complementizer. Alakhldi ([14]: 145ff) presents a number of arguments in support of considering *ʔallaḍi* as a complementizer; however in the case of (*mann*, *maa*, *ayyan* ...etc), she calls them relative pronouns (Alkhaldi, [14]: 208). Nonetheless, she does not say why she calls them this way<sup>1</sup>.

I should also mention that RCs (*ʔallaḍi*, *ʔatti*) are inflected for number, gender and case. Other RCs (*mann*, *maa*, *ayyan*... etc) are invariant. In addition while (*ʔallaḍi*, *ʔatti*) occur in ordinary relative clauses and in FRs, (*mann*, *maa*, *ayyan*... etc) can only appear in FRs. I should

<sup>1</sup> It should be mentioned that Fassi ([15]: 8) assumed that *ʔallaḍi* is some sort of a determiner and (*mann*, *maa*, *ayyan*... etc) as relative pronouns.

also point out that these RCs are different from the sentential complementizers *ʔan* and *ʔanna* which introduce complement clauses: *ʔan* introduces verbal complements as in (3) and *ʔanna* introduces nominal complements as in (4) below:

- (3) qultu li Zaid-in ʔan yaktuba ʔr-risalat-a.  
Told-I to- Zaidin-Gen that write the-letter-Acc  
'I told Zaid that (he) write the letter.'
- (4) ʔaḍunu ʔanna Zaid-an saafara.  
Think-I that Zaid-Acc departed  
'I think that Zaid (had) departed.'

Fassi Fehri [15] described and discussed "Comparatives and Free Relative clauses" in (LA) and Spoken Moroccan Arabic (SMA). He assumed that what he calls relative pronouns are base-generated inside the FR. He provided a somewhat extensive set of examples of FRs in LA which is beneficial to any researcher interested in this field of study. He held a comparison between LA and SMA. However, his study was conducted within the early stages of generative grammar which renders it somewhat outdated except for certain insightful observations he made about the position and structure of FRs in LA. For instance, he argued that FRs do not allow pied piping and cited the following (modified) example:

- (5a) jaa'a mann takalama-tu ma<sup>c</sup>a-hu.  
Came who spoke-I-Nom with-him-Gen  
'Who (m) I spoke with came.'
- (5b) \*jaa'a ma<sup>c</sup>a mann takalamatu.  
Came with whom -3-M-Sg spoke-I

It can be seen that while (5 a) is fully grammatical, (5 b) has been rendered ungrammatical because of fronting the pp (*ma' a mann*). Another observation he made is that FRs have a resumptive pronoun (clitic) retention strategy as well as a deletion strategy. Consider his following example:

- (6a) lam ʔafa<sup>c</sup> al [maa taḍunnu ʔannii fa<sup>c</sup>ala-tu]  
Not did-I what think- you that-I did-I-Nom  
'I didn't do what you think I did.'
- (6b) lam ʔafa<sup>c</sup> al [maa taḍunnu ʔannii fa<sup>c</sup>alatu-hu]  
Not did-I what think-you that-I did-I Nom-it-Acc  
'I didn't do what you think I did it.' ([15]: 3)

It can be clearly seen that while (6 a) has no resumptive clitic in the bracketed FR, (6 b) has one, (it). This shows that FRs maintain both strategies: retention and deletion of a clitic. As said before, although his paper was written within the early transformational grammar framework, still it is an indispensable source of data on FRs in LA.

Alqurashi [11] dealt with Standard Arabic FRs and analyzed them within the Head-Driven Phrase Structure Grammar (HPSG) framework. Though his framework is different from the framework adopted in this study which is a minimalist phasal framework, his analysis is very telling and beneficial to those interested in this area of research. However, he assumed that RCs are base-generated outside the FR. Another study that handled FRs in Standard Arabic was conducted by Alkhaldi [14].

Alkhaldi ([14]:208ff) had applied three accounts that were carried out on the structure of FRs in English on the structure of FR's in Standard Arabic [16,17,18]. She concluded that none of these three accounts could be successfully applied to the structure of Standard Arabic FRs and argued against their application.

However, she modified Ojea's account by replacing Ojea's "nominalizer switch (recategorizer)" with a projection

of CP into a NomP (nominal phrase) which in turn projects into a DP. The question is: why did Alkhaldi posit a stipulated null NomP and made it project into a DP? As a matter of fact her alternative proposal does not fare any better than that of Ojea's in being ad hoc and unmotivated. I have indicated in the abstract of this paper that a major difference between Restrictive and Non-restrictive relative clauses and FRs is that while Restrictive and Non-restrictive relative clauses are headed, FRs are headless. In addition, while FRs occupy argument positions in the sentence such as subject position or object position, Restrictive and Non-restrictive relative clauses occupy non-argument positions since they function as modifiers. To illustrate this point let us consider some examples:

- (7) jaa'a [ʔallaḍi faaza fi l-musabagat-i.]  
Came who won in the-competition-Gen  
'Who won the competition came.'
- (8) ra'ayt-u [ʔlatti ʔuhibu-haa.]  
Saw-I who-Fem I- love -her-Acc  
'I saw (who (m) Fem) I love.' ([10]: 30)
- (9) ʔakulu [maa taʔ-kulu.]  
I- eat what you-eat  
'I eat what you eat.'
- (10) ʔuhibu [ʔayy-an tuhibu.]  
I-like whatever you-like  
'I-like whatever you like.'
- (11) ʔimtalaktu maša<sup>c</sup>ira [mann ʔuhib-haa.]  
Possessed-I feelings whom love—I-her  
'I possessed (her) feelings whom I love.'

It can be observed that the bracketed FR in (7) has the position of a subject DP while the bracketed FRs in (8, 9 and 10) have the position of an object DP. In (11) the FR appears in a possessor position. FRs can also fulfill the position of a PP as in (12 and 13) below:

- (12) takallumtu [m<sup>c</sup>a mann takalamata.]  
Spoke-I with whom spoke-you  
'I spoke with whom you spoke.'
- (13) taaxasumtu [ma<sup>c</sup>a mann akalamata.] ([15]: 3)  
Quarreled-I with whom spoke-you  
'I quarreled with whom you spoke.'

FRs can also assume the structure of adverb clauses. Check the following.

- (14) saʔarji<sup>c</sup>u [mata turiidu]  
Will-come back-I when (ever) want-you  
'I will come back when (ever) you want.'
- (15) ʔaskunu [ʔynamaa tasʔkunu.]  
Live-I (wherever) live-you  
'I live wherever you live.'

It can be seen that the bracketed FR in (14) has a temporal sense and the bracketed FR in (15) has a locative sense. Both have been treated as nominal clauses because they are similar to a DP distribution<sup>2</sup>. Before I move to present what I assume to be a principled account of FRs in LA, let me show how FRs in English have been analyzed.

## 2. FRs in English

A number of linguists have tried to offer different proposals to analyze FRs in English [16,17,18,19,20]. As I

<sup>2</sup> It has to be mentioned that Fassi ([15]: 3) noted that adverbial FRs do not allow clitic deletion.

have mentioned before, Alkhadli ([14]: 2008 ff) critically reviewed Donati's, Otto's and Ojea's accounts of free relative clauses in English, but she did not review either Van Riemsdijk's or Caponigro's. However, some of her revisions, especially in the case of Otto's were unfortunate due to some misunderstanding on her part of the intricate analysis of FRs in English carried out by this researcher.

Otto [18] has compared his proposal of analyzing FRs in English to that of Donati's [16] and concluded that his proposal was superior to hers. He also mentioned in passing that there was no need for Caponigro's [19] to posit a covert (silent) D in the structure of the DP and treat the FR as a complement of the D head. Otto ([18]: 187) sees this as an unnecessary mechanism.

The problem that faced those researchers is the dual categorial nature of the FR in English. They observed that a FR as in (16) below:

(16) I (eat) [<sub>FR</sub> what<sub>i</sub> you cook t<sub>i</sub>], Otto ([18]:183) has the position of a DP; it occupies an argument object position which is reserved for a DP but it has the structure of a CP. They also noted that the wh-word has been moved from the object position to the left periphery of the RF.

Otto [18] came up with an ingenious solution to this dilemma. Chomsky [21] (2000 and his subsequent work) "argues that structure is transferred from the derivational workspace to the interface components cyclically", "by phase" ([18]: 184). It has been proposed that a sentence like that in (16) comprises two phases: a  $\nu$ P phase and a CP phase. In case of FRs, a structure is transferred cyclically from the derivational workspace to the interface components: PF and LF. When the structure is transferred to the phonological component all the uninterpretable features of the lexical items in that structure are removed in order that the remaining structure will satisfy the condition of Full Interpretation which means that the structure will include only the interpretable features at the semantic component (Chomsky [22]: 219; [1]: 154).

Otto [18], following mainly Chomsky [1], proposes that the computation system requires uninterpretable features on the phase heads v/C to be inherited by the closest non-phase heads (V or T). Richards [23] indicates that for Transfer and valuation of features to take place only interpretable features could remain on a phase head. Otto goes on to illustrate how cyclic Transfer and feature inheritance would solve the problem of the categorial duality of FRs. i.e. of DP distribution and CP form.

He argues that in an embedded FR as in (17) below the C head does not bear any interpretable features because a FR does not have a clause type or (force).

(17) (I eat) [<sub>CP</sub> what<sub>i</sub> C<sub>FR</sub> [<sub>TP</sub> you T<sub>Φ</sub> eat t<sub>i</sub>]

Further he adds that the C<sub>FR</sub> is never selected by a matrix predicate because FRs are CPs occupying DP positions. As said before he considers that C<sub>FR</sub> bears no interpretable features, but only uninterruptable ones, i.e. agreement features which will be inherited by T. In order to satisfy the condition of Full Interpretation, a phrase head that does not carry any interpretable feature after the inheritance takes place should be removed during the process of computation at the point of Transfer. He cites the following example to show what happens to a C<sub>FR</sub>:

(18) [<sub>VP</sub> eat] [<sub>CP</sub> what<sub>i</sub> C<sub>FR</sub> [<sub>TP</sub> you T<sub>Φ</sub> eat t<sub>i</sub>]

It can be clearly seen that after Transfer what remains in the CP is the wh- phrase. According to Chomsky

([22]: 244; [1]: 145), if the label of a phrase is identical to the projecting element in that phrase, the CP label is lost during Transfer. What is left after Transfer is only the nominal wh-phrase at the edge as in (19) below:

(19) [<sub>VP</sub> eat] [<sub>DP</sub> what C<sub>FR</sub> [<sub>TP</sub> you T<sub>Φ</sub> eat t<sub>i</sub>]

The edge element *what* is the only visible element at the matrix cycle, giving the distribution of a DP. According to Otto ([18]: 186), this explains the dual nature of a FR. Hence a FR is a CP up to the stage where the head of CP and its complement are transferred to the interface components; after this stage, the FR yields a DP. Otto concludes that the Phase Theory offers a principled account of the dual nature of a FR because the wh-phrase is both internal and external to the FR, but at different stages. In other words, the wh-phrase is moved first from inside the FR to its left periphery after the Transfer of the head and its complement what is left is the wh-phrase on the matrix cycle. In this way the FR will have the distribution of a DP. Now I will turn to analyze FRs in LA in a similar fashion to that of Otto's.

### 3. FRs in LA

I have presented in the introduction part of this paper some examples on FRs in LA. In this section I want to discuss more properties of FRs in LA. While the RCs (*ʔallaði*, *mann*) refer to animate and inanimate objects alike, *maa* only refers to inanimate objects. Consider the following examples:

(20a) jaaʔa [ʔallaði/mann kataba r-risaalata]  
Came who wrote the-letter  
'Who wrote the letter came.'

b \*jaaʔa [maa kataba r-risaalata]

It can be noticed that sentence (20 a) is grammatical since *ʔallaði/mann* refer to an animate entity while sentence (20 b) is ungrammatical because *maa* is intended to refer to an animate object, but it cannot. I should also mention that when the RF appears in subject position, the matrix predicate agrees with the RC *ʔallaði* in person, number, gender and (case if it is visible). Consider the following example:

(21a) raja<sup>a</sup> [ʔallaði saafra.]  
Came back who departed  
'Who departed came back.'

b [ʔallaði saafra] raja<sup>a</sup> / \* raja<sup>a</sup>-t]] (Fem)  
/ \* raja<sup>a</sup> -a]] (dual)  
/ \* raja<sup>a</sup>-uu]] (PL)

It can be seen that *ʔallaði* in (21 a) which is third person singular agrees with *raja<sup>a</sup>* in person, number and gender. This explains the ungrammaticality of (21 b) when we use Fem, Dual or Plural. One final property of FRs in LA that I would like to address is the fact that the RCs *allaði*, *allati*, *mann*, *maa*, *ayyan*...etc agree in number and gender with the gap or clitic inside the FR. In the case of a gap agreement, it appears on the verb inside the FR as (22) below; in the case of a clitic the agreement appears on the clitic itself as in (23) below.

(22) qaabla [al-muder-u [ʔallaði na faaz-uu fi ʔal-jaaʔazah]  
Met the-principal-Nom RC--Mas-PL-Acc won-Mas-PL-Nom in the-prize

The principal met with who (m) (3- Mas-PL) won (Mas-PL) the prize.

- (23) raʔ aytu [ʔallatai-ni yaxafaa-**humaa** zaid-an.]  
 Saw-I RC-F-Dual-Acc feared-F-Dual Zaid-Acc  
 'I saw whom RC F-Dual) Zaid feared (them).'

#### 4. Analysis of FRs in LA

In this section, I want to try to offer, hopefully, a comprehensive, principled analysis of FR structures in LA. After the syntactic structure of a FR is built in the workspace through merger, movement and agreement operations (the derivation will be shown later step by step), the RC is moved to the left periphery of the FR. The only feature of  $C_{FR}$  is the uninterpretable edge feature which triggers the RC movement ([1]: 148). After triggering movement of RC, the edge feature is assumed to delete. Consider the following example:

- (24) ʔuhibu [<sub>FR</sub> maa<sub>i</sub> taʔ-kulu ti]  
 Like-I what eat-you-Nom-Acc  
 'I like what you eat.'

Structurally, the bracketed FR is considered a CP with the head C carrying a  $C_{FR}$  feature:  $C_{FR}$  [16,18].

It can be seen that there is a trace in (24) after the verb *taʔ-kulu* which means it is assumed that *maa* has been moved to the left periphery of the RF. Now what will happen if we place a DP in the trace position? Consider the following example:

- (25) \*ʔuhibu [<sub>FR</sub> maa<sub>i</sub> taʔ-kulu ruzz-an]  
 Like-I what eat- you rice  
 \*'I like what you eat rice'

From a grammatical point of view, if we place a DP in the trace position in the bracketed FR in (25) the resulting sentence will be ungrammatical which shows that a DP has been raised and the position is not vacant and reserves a copy (trace) of the moved RC. Intuitively speaking, it can be clearly seen that the RC *maa* (*what*) has been raised from its original position as object of the embedded verb *taʔ-kulu* and placed at the beginning of the embedded FR. That is why I use subscripts in (24) to co-index the RC with its original position. This clearly shows that the RC is not base-generated but the result of movement from inside the FR. Now the question whether the new position of RC *maa* is internal or external to the FR will be answered later. It has been said before that the FR has the structure of a CP, so sentence (24) will look like the following:

- (26) (ʔuhibu) [<sub>CP</sub> maa<sub>i</sub> C<sub>FR</sub> [<sub>TP</sub> taʔ-kulu ti.]

It can be observed that the FR is a CP with *maa* inside it. As said before, in the minimalist framework CP and  $vP$  are considered to be phases. Chomsky [1] offers an argument in support of positing that (un)interpretable features originate on a phase head and then they are inherited by the T and  $v$  beneath them. After completion of agreement and movement operations in the CP in (26) above, the complement structure (TP) is transferred cyclically to the interface components: FP and LF. The result of transfer to the PF component (Spell-Out) is that all uninterpretable features are deleted and only interpretable features on lexical items remain at the LF component in order to meet the principle of Full Interpretation ([1]: 154). When the Transfer operation is completed what remains is the edge element of the phase at the next cycle ([24]: 108). The remaining structure will look like the following:

- (27) (ʔuhibu) [<sub>CP</sub> maa<sub>i</sub> C<sub>FR</sub> [<sub>TP</sub> taʔ-kulu ti.]

However, the phase head  $C_{FR}$  bears no interpretable features because the T has inherited all the formal features from it. Since the phase head bears an uninterpretable feature and in order to satisfy the principle of Full Interpretation, it should be removed with its complement upon Transfer. Hence the computation of sentence (27) after Transfer will be:

- (28) [<sub>VP</sub> ʔuhibu [<sub>CP</sub> maa<sub>i</sub> C<sub>FR</sub> [<sub>TP</sub> taʔ-kulu ti]

It can be seen now that the only element visible at the next phase, the (matrix  $vP$ ) is the nominal *maa* which is a DP. According to Chomsky ([22]: 244; [1]: 145), if the label of a phrase is identical to the projecting element in that phrase, the CP label is lost upon Transfer of the  $C_{FR}$ . Since the  $C_{FR}$  has been removed and the CP label is lost, at the next cycle we will have a new structure and a new label. Consider the following:

- (29) [<sub>VP</sub> ʔuhibu [<sub>DP</sub> maa<sub>i</sub> C<sub>FR</sub> [<sub>TP</sub> taʔ-kulu ti]

Note that instead of the CP label in (28), we have a DP label which explains the distribution of the FR as a DP. It can be observed that the *maa* is internal to the FR and external to it, but at different phases. Some authors such as [25] consider the RC internal to the FR while others [26] consider it external. However, the analysis in this paper provides a satisfactory answer to the different positions adopted by these authors.

At this point, we can answer the question stated in the abstract of this paper: whether the FR is a CP or DP. The answer is both; the FR is a CP at the CP phase and a DP at the  $vP$  phase. Thus Chomsky's [1] Phase Theory provides a comprehensive and principled account of the seemingly categorial duality of the FR in LA.

What if the RC is a pp or a locative (*ʔaynamaa*) or temporal (*mataa*), in the analysis developed in this paper this does not constitute a problem since the FR can assume the label of the category moved to its left periphery. However in terms of distribution, adverbial FRs are considered DPs. Consider example (13) repeated below for convenience:

- (30) taaxasumtu [ma<sup>a</sup> mann takalamata.] ([15]: 3)  
 Quarreled-I with whom spoke-you  
 'I quarreled with whom you spoke.'

It can be seen that *ma<sup>a</sup> mann* which is a pp occupies an object position which is a canonical position for a DP.

It has been said before that matching effects do occur with FRs (Van Ramsdijk 2006: section 4). The RC at the edge of the FR has to match selectional restrictions of both matrix and embedded predicates; in other words, the RC is "shared". The matching effects (shared property of the RC) can be accounted for straightforwardly under the current account since the RC is considered to be part of different derivational phases.

One might wonder at this point what about the  $\theta$ -Criterion principle which requires mapping of arguments into their thematic roles. How would it be possible for the RC to be  $\theta$ -marked twice? (Van Ramsdijk 2006: 348)<sup>3</sup>. There will be no problem if the  $\theta$ -Criterion principle is construed as an interface condition. It applies once to the RC at the  $vP$  level (cf. Chomsky [27]: 123; [28]: 18).

<sup>3</sup> Harbert [29] tries to account for this problem by assuming that FRs are headed by Pro/pro. Under the present analysis there is no need for such an assumption.

As a consequence of the analysis in this paper, since the FR becomes a DP after Transfer of  $C_{FR}$ , extraction from FRs is as bad as extraction from complex noun phrases. First, let us take an example of a complex NP from English. Consider the following:

- (31a) The boy who I believe [that Fred saw-----]
- b \*The boy who I believe [the claim [that Fred saw--]]

The bracketed sentence in (31 b) is a sentence contained within a NP which is called in the literature a complex NP. It can easily be seen that extracting *who* from inside this complex NP renders the sentence ungrammatical. "Who" has crossed a clause boundary which is contained within a NP. This is what Ross [29] called the Complex NP Constraint. What about FRs in LA? Consider the following example:

- (32)  $\text{ʔaq\text{la}qa}$  [<sub>FR</sub>  $\text{maa}$   $\text{fa}^C$   $\text{ʔah-u}$   $\text{Zaid-un}$   $\text{ʔabahu}$ ]  
 Worried what did Zaid-Nom father-his-Acc  
 'What Zaid did worried his father.'

The bracketed clause in (32) is a FR; let us see what happens if we try to extract an element from inside it. The result will be ungrammatical as the following sentence shows:

- (33) \* $\text{maa}$   $\text{ʔaq\text{la}qa}$   $\text{fa}^C$   $\text{ʔah-u}$   $\text{Zaid-un}$   $\text{ʔabahu}$ .

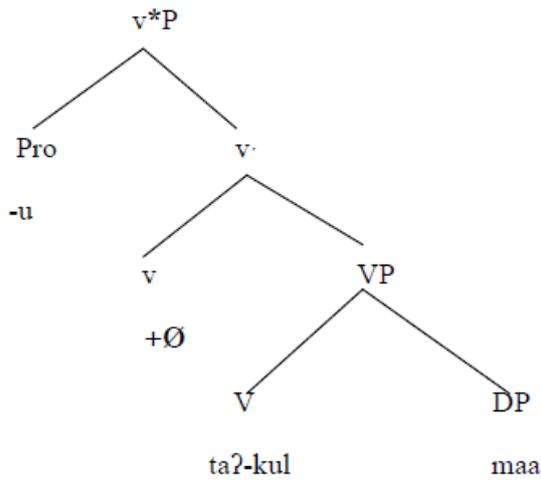
It can be clearly concluded that extraction from a FR in LA is as bad as extraction from a complex NP in English. In the next section, I am going to show how a FR in LA is derived within the minimalist phase theory of [1].

### 5. Derivation of FRs in LA

Let us consider the following illustrative example:

- (34) ( $\text{ʔuhibu}$ ) [<sub>CP</sub>  $\text{maa}$ ; <sub>C<sub>FR</sub></sub> [<sub>TP</sub>  $\text{taʔ-kulu}$   $\text{ti}$ .]

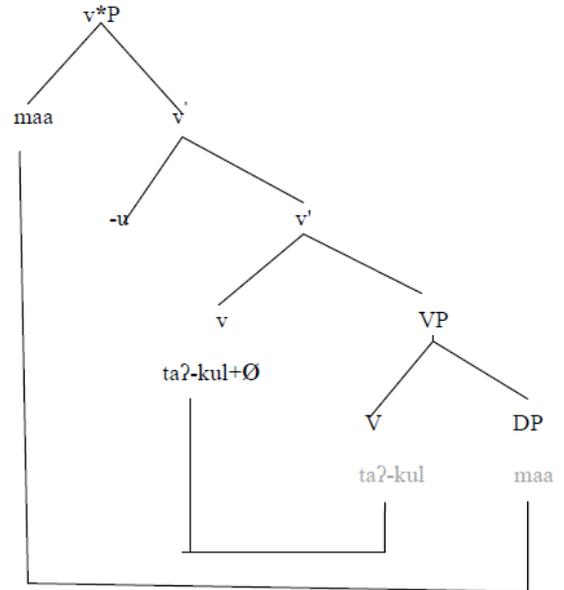
*Maa* merges with the V *taʔ-kul* to form a VP. The VP merges with a null affixal verb *v* to form a  $v'$ ; the  $v'$  will merge with the subject, the second person pronoun *-u*, to form a  $v^*P$  as in the following tree-diagram:



(35)

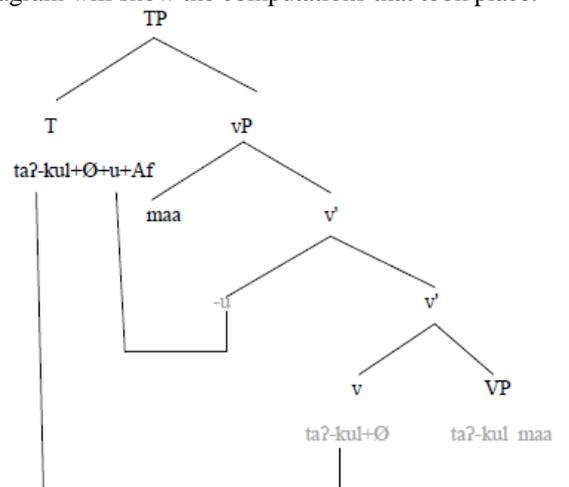
The  $v^*P$  at this stage is a phase and the head *v* is active because it has an external argument the subject *-u* and it has uninterpretable features that have to be valued. The null affixal verb *v* needs support; it cannot stand by itself hence it attracts the verb *taʔ-kul* to adjoin to it. The *v* is a probe; it searches within its c-commanding domain and locates *maa* and assigns Acc case to it. Now *maa* has to move to the edge of  $v^*P$  so we have to extend the projection of  $v'$  thus *maa* will land to the left of the subject *-u*, the outer Spec of  $v^*P$ .

Now the transitive  $v^*P$  is completely formed in the workspace by checking and deleting uninterpretable features and moving the elements that have to be moved: V *taʔ-kul* and *maa*; the complement of the *v* (the VP) is transferred to the interface to receive a null spell-out because what is left in the VP are null copies of the moved elements. The following tree-diagram will illustrate the operations involved:



(36)

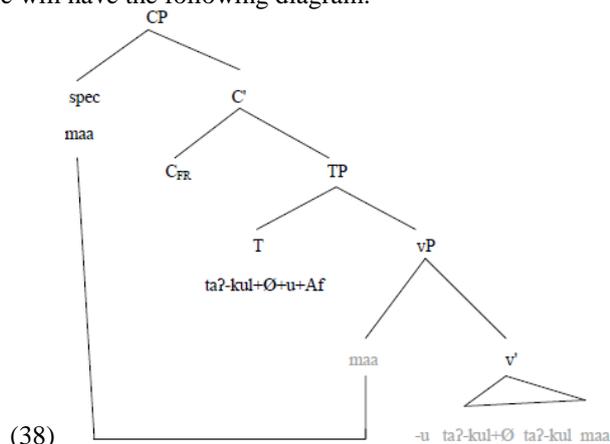
The  $v^*P$  will merge with T to form a TP; the T is a strong Affix (Af) and it is a probe and it probes in its c-commanding domain and locates *maa*, but *maa* has already been case marked Acc and we cannot case mark a DP with two conflicting cases; hence T keeps probing and finds the subject *-u* and assigns Nom case to it, and the subject will value the unvalued  $\phi$  features of the head T, and the T will trigger movement of the verb *taʔ-kul* to adjoin to it. At this point in the derivation the subject *-u* will be incorporated onto the verb *taʔ-kul*. The following tree-diagram will show the computations that took place:



(37)

After completing the movement and agreement operations within the TP. The TP merges with the head C which carries an uninterpretable feature  $FR$ . The FR in LA does not have a force type and the  $C_{FR}$  does not bear any interpretable features and is not selected by the matrix verb *ʔuhibu*. Nevertheless, the  $C_{FR}$  will project into a C' and a Spec. I have to mention here that the phase head C lends all its formal interpretable features to the T head.

Now the CP has an uninterpretable edge feature thus *maa* has to move to the Spec of CP to delete this feature. Hence we will have the following diagram:



After the completion of the computations within the CP, the c-commanding domain of the head  $C_{FR}$  will undergo Transfer to the interface components. However, since the head  $C_{FR}$  carries an uninterpretable feature, it should be removed from the workspace along with its complement when Transfer takes place so that the Full Interpretation condition could be satisfied. Now what we are left with is the following structure:

(39) (ʔuhibu) [ $CP$   $maa_i$  [ $C_{FR}$  [ $TP$   $taʔ-kulu$   $maai$ ]]]

The only visible element in the CP is *maa* which is a DP and it functions here as a relative complementizer. However, if the label of a phrase is identical to the projecting element in that phrase ([22]:244; [1]:145), the CP label is lost when the uninterpretable  $C_{FR}$  is transferred to the interface components. This means that the only remaining visible element is *maa*. Thus, we will have the following structure:

(40) [ $vP$  ʔuhibu [ $DP$   $maa_i$  [ $C_{FR}$  [ $TP$   $taʔ-kulu$   $maai$ ]]]]

Due to the Transfer of the CP with its complement, *maa* is the only visible element at the next phase of the derivation, giving the DP distribution of the FR in LA. At this point we can explain the dual nature of FRs, i.e. having the structure of a CP and the distribution of a DP, as is the case in English FRs [18]. A FR remains a CP due to the uninterpretability of the  $C_{FR}$  until the Transfer of its head and complement in order to satisfy the condition of Full Interpretation. At the end of this cycle the CP will turn into a DP.

It can be concluded at this stage that the Phase theory provides a natural solution to the apparently dual nature of FRs.

## 6. Conclusion

I have tried to describe and analyze FRs in LA following previous studies conducted by linguists interested in this field of research. Hopefully, I have shown that the RC in FRs in LA is not generated in initial position but the result of movement from its internal position in the clause. I have also argued that the FR is both a CP and a DP but at different phases of the derivation due to the position of the RC, during the computation. I have further shown that Chomsky's Phase theory offers a principled account to the apparently

categorial duality of Arabic FRs, as is the case in English FRs, where the relative complementizer is both internal to the FR and external to it but at different phases in the syntactic computation. This situation explains why FR has the structure of a CP and the distribution of a DP. The applicability of Phases and Transfer to FRs in LA provides a supporting piece of evidence to the universal character of the Phase theory.

## References

- [1] Chomsky, Noam. 2008. On Phases. In Freidin, R., Otero, C., P., and M.L. Zubizarreta, (eds.), *Foundational Issues in Linguistic Theory: Essays in Honor of Jean Roger Vergnaud*, 133-166. Cambridge, MA: MIT Press.
- [2] Sauieh, Saadun. 1980. *Aspects of Arabic Relative Clauses: A study of the structure Relative Clauses in Modern Written Arabic*. Bloomington: Indiana University. (Doctoral Dissertation.)
- [3] Alsyad, A. 1998. *A Government Binding approach to Restrictive Relatives, with particular reference to Relatives in Standard Arabic*. University of Essex. (Doctoral Dissertation.)
- [4] Hamdalah, Rami. & Tushyeh, Hanna. 1998. *A contrastive analysis of English and Arabic in Relativization*. Papers and Studies in Contrastive Linguistics, 141-152. School of English. Adam Mickiewicz University. Poland.
- [5] Choueri, Lina. 2002. *Re-visiting Realativs: Issues in the Syntax of Presumptive Restrictive Relatives*. California: University of Southern California. (Doctoral Dissertation.)
- [6] Darrow, James. 2003. *Relative Clauses in Syrian Arabic*. Perspectives on Arabic Linguistics XV. Papers from the 15<sup>th</sup> Annual Symposium on Arabic Linguistics.
- [7] Galal, Mazen. 2004. *A minimalist approach to Relative clauses in Modern Standard Arabic*. University of Kansas. (Doctoral Dissertation.)
- [8] Ouhala, Jamal. 2004. *Semitic Relatives*. *Linguistic Inquiry* 35.288-300.
- [9] Aoun, Joseph & Benmamoun, Elabbas & Choueri, Lina. 2010. *The Syntax of Arabic*. Cambridge: Cambridge University Press.
- [10] Alqurashi, Abedalrahman & Borsely, Robert, D. 2012. *Arabic Relative clauses in HPSG*. In Muller, Stefan (ed.), *Proceedings of the 19<sup>th</sup> International Conference on Head-Driven Phrase Structure Grammar*. Daejeon: Chungnam National University: CSLI Publications.
- [11] Alqurashi, Abedalrahman. 2012. *An HPSG approach to Free Relatives in Arabic*. In Muller, Stefan (ed.), *Proceedings of the 19<sup>th</sup> International Conference on Head-Driven Phrase Structure Grammar*. CA: Stanford: CSLI Publications.
- [12] Al-Washali, Ibrahim & Hasnain, Imtiaz. 2013. *A comparative study on the Relative Clause Structure in English and Arabic*. *Language In India* 13. 1-21.
- [13] Shaheen, Buthina. 2013. *A comparative study of Restrictive Relative Clauses in Latakian Syrian Arabic and English and the acquisition of English Restrictive Relative Clauses by first language speakers of Latakian Syrian Arabic*. University of Essex: (Doctoral Dissertation.)
- [14] AL-Khaldi, Bara'ah. 2015. *Relativization in English and Arabic: A contrastive study*. Yarmouk University. (M.A. thesis.)
- [15] Fassi, Fehri, A. 1978. *Comparatives and Free Relatives in Arabic*. *Recherches Linguistiques de Vincennes* no 7.
- [16] Donati, Caterina. 2006. *On Wh-Movement*. In Cheng, L. L and N. Corver, (eds.), *Wh-Movement: Moving On*, 21-46. Cambridge, MA: MIT Press.
- [17] Ojea, Ana. 2011. *On Mixed Categories: The case of Free Relatives*. *SKY Journal of Linguistics*. 24. 119-143.
- [18] Otto, Dennis. 2011. *A note on Free Relative Clauses in Theory of Phases*. *Linguistic Inquiry* 42, 138-142.
- [19] Caponigro, Ivano. 2002. *Free relatives as DPs with a silent D and CP complement*. In Samiiian, Vida, (ed.), *Proceedings of WECOL, 2000*, 140-150. Fresno: California State University. Department of Linguistics.
- [20] Riemsdijk, Henk, van. 2006. *Free Relatives*. In Everaert, Martin and Henk C. van Riemsdijk, (eds.), *The Blackwell Companion to Syntax* 2 338-382.

- [21] Chomsky, Noam. 2001. Derivation by Phase. In Kenstowicz, Michael. (ed.), *Ken Hale: A Life in Language*, 1-52. Cambridge, MA: MIT Press.
- [22] Chomsky, Noam. 1995. *The Minimalist Program*. Cambridge, MA: MIT Press.
- [23] Richards, Marc, D. 2007. On Feature Inheritance. An argument from the Phase Impenetrability Condition. *Linguistic Inquiry* 38. 563-572.
- [24] Chomsky, Noam. 2000. *Minimalist Inquiries: The Framework*. In Martin, R., Michaels, D. and J. Uriagereka, (eds.), *Step by Step: Essays on minimalist syntax in honor of Howard Lasnik*, 89-155. Cambridge, MA: MIT Press.
- [25] Gross, Anneke. & Riemsdijk, Henk.C. van. 1981. Matching effects with Free Relatives: A parameter of core grammar. In Belletti, Adriana, Brandi, Luciana, and Luigi, Rizzi, (eds.), *Theory of markedness in generative grammar: Proceedings of the 1979 GLOW Conference*, 171-216. Pisa:Scuola Normale Superiore.
- [26] Bresnan, Joan & Grimshaw, Jane. 1978. *The Syntax of Free Relatives in English*. *Linguistic Inquiry* 9. 331-391.
- [27] Chomsky, Noam. 2004. *Beyond Explanatory Adequacy*. In Belletti, Adriana, (ed.) *Structure and Beyond*. Vole 3. 104-131. Oxford: Oxford University Press.
- [28] Chomsky, Noam. 2007. *Approaching UG from below*. In Sauerland, Uli and H.M. Gartner, (eds.), *Interfaces Recursion = Language?* 1-29. Berlin: Mouton and Gruyter.
- [29] Ross, J.R. 1967. *Constraints on variables in syntax*. MIT. (Doctoral Dissertation.)
- [30] Harbert, Wayne. 1983. *On the Nature of the Matching Parameter*. *The Linguistic Review* 2. 237-284.



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