
Arabic Relative Clauses And ECP

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Abstract

This article is intended to show that empty categories (henceforth, ECs) in Arabic, specifically, in relative clauses are best handled within the Government-Binding (GB) framework. It will be demonstrated that early Arab grammarians and some contemporary Arab linguists are unable to advance an adequate account of those ECs. As a matter of fact, Arab grammarians' analysis of such categories was vague.

In their analysis of those ECs, early Arab grammarians, implicitly, and contemporary Arab grammarians, explicitly, assume two distinct linguistic levels: syntactic and semantic. Our approach, using the GB model, proposes a solution to certain debated issues in relative constructions in Arabic. Furthermore, it is more in concord with the facts of Arabic.

ملخص

يبين هذا البحث ان أفضل السبل لمعالجة الفئات الخيالية (Empty Categories) في اللغة العربية وبخاصة في جمل الصلة هو من خلال اطار نظرية العامل والرابط (Government and Binding) في اللغويات الحديثة. كما سيبين هذا البحث ان النحويين العرب القدماء وبعض المحدثين لم يتمكنوا من تقديم تفصيل واف، شاف لهذه الفئات الخالية، وفي حقيقة الأمر فان تحليلهم لهذه الظاهرة يكتنفه الغموض.

لقد افترض النحويون القدماء ضمناً وبعض المحدثين علناً في تحليلهم لهذه الفئات الخالية مستويين لغويين: نحوي (تركيبى) ومعنوي. بينما في التحليل الذي نقدمه في هذا المقال فاننا نفترض مستوى لغوي (تركيبى) واحد من خلال نظرية الرابط والعامل كما ونقترح حلاً لبعض الأمور المختلف عليها في تراكيب جملة الصلة في اللغة العربية. كذلك فان تحليلنا ينسجم وبشكل أفضل مع حقائق اللغة العربية.

قاعدة الفئة (الموضع) الخالية = Empty Category Principle = ECP * .

0 - Introduction:

ECs play a central role in the GB theory mainly developed by Chomsky⁽¹⁾. As a matter of fact, some linguists view GB as “largely a theory of empty categories (trace, PRO)”⁽²⁾. Chomsky himself stresses the importance of ECs by saying that they are not only important in revealing many of the properties of syntactic rules and representations, but that ECs “reflect inner resources of the mind” and thus may offer great understanding of “the nature of the human language faculty”⁽³⁾. A great number of linguists have presented insightful and interesting analyses of ECs in a number of languages⁽⁴⁾. There has been a vast growing body of literature on those categories. Arabic is no exception. ECs in Arabic are a pervasive phenomenon. In what follows we will present sets of data to exemplify the types and distribution of ECs in Arabic. The position of the empty category will be regularly indicated by [e].

There are mainly three EC types in Arabic. The first EC type is NP-trace. This represents an NP that has undergone movement to the left as in the following example.

1 - ?al-walad-ai	rakala	Zaid-un[e] ⁽⁵⁾
def-boy-acc	kicked	Zayd-nom
“Zaid Kicked the boy”.		

The second EC type is “pro”. Consider the following examples.

2 - ð ahaba [e]	?illaa-s-Suuq-i
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- (1) Chomsky, N, **Lectures on Government and Binding**, Dordrecht: Foris Publication, 1981.
Chomsky, N, **Some Concepts and Consequences of the Theory of Government and Binding**, Cambridge, Mass: MIT Press, 1982.
Chomsky, N, **Barriers**, Cambridge, Mass: MIT Press, 1986.
- (2) Iwakura, K, **Linguistic Analysis**, 1984: 219.
- (3) Chomsky, N, 1981: 55.
- (4) Among those linguists, see Aoun, J, **Linguistic Inquiry**, 1981: 637-645. Haider, H, **Linguistic Inquiry**, 1986: 113-126. Huang, J.C, **Linguistic Inquiry**, 1984: 531-574. Kayne, R.S, **Linguistic Inquiry**, 1981: 93-133. Lasnik, H & M. Saito, **Linguistic Inquiry**, 1989: 235-289. Safir, K, **Linguistic Inquiry**, 1984: 603-638.
- (5) Many of the examples mentioned in this paper appear in Suaih, S, **Aspects of Arabic Relative Clauses**, Ph.D. Dissertation, Indiana University, Indiana, Bloomington, 1980. Ameireh, K, “?araa? fi d-damir ?al’aa?id wa lughat ?akaluuni Ibaraa’ith”, unpublished ms., Yarmouk University, Irbid - Jordan, 1988.
Farghal, M, **The Syntax of WH-Questions and Related Matters in Arabic**, Ph.D. Dissertation, Indiana University Indiana, Bloomington, 1986.

went he to -def-market-gen

“He went to the market”.

3 - ?ar-rajulaanii mataa saafaraa [ei]?

def-two men when left they

The two men, when did they leave?

It should be noted that the EC in (3) can be viewed as either an NP-trace, i.e./?ar-rajulaani/ has been fronted leaving a trace, or a “pro” coindexed with the higher NP. This depends on one’s theory of grammar, i.e. whether there is movement involved or not. The early Arab grammarians entertain both accounts, i.e. NP-trace, or pro-drop⁽⁶⁾.

The third EC type is wh-trace as in the following:

4 - mani ra?aa Zayd-un [ei] ?

who saw Zayd-nom

“Who did Zaid see”?

However, for the purposes of this paper we will concentrate on ECs in relative clauses.

ECs in Arabic relative clauses assume two positions: object position and subject position. In object position the EC is optional, i.e., either the EC appears on the surface, or a resumptive pronoun appears instead. Check the following examples.

5 - ?aqbalati - 1 - faataat-ui- llatii ?ahabba - [ei]

came - def - girl - nom - who loved - Zayed - un. zaid - nom.

6 - ?aqbalati - 1- fataat - ui - llatii ?ahabba - hai

came def girl - nom who loved - her Zayd - un. Zaid - nom.

“The girl whom Zaid loved (her) came”.

It can be seen that in (5) there is an EC immediately after the verb “?ahabba -[ei]”. In (6), on the other hand, the resumptive pronoun “-ha” appears instead.

In subject position the EC is obligatory. Examine the following examples:

7a - ?aqbalati - 1- fataat - ui - llatii qaadati - [ei] - 1 -

came def girl - nom who led (she) def

mu&aaharat-a -a.

demonstration - acc.

“The girl who led the demonstration came”.

7b - ?aqbalati - 1 - fataat - ui - llatii qaadati - hiyai 1-mu&aaharat-a

8a - qaabal - tu r- raJul-ai; 11 a&i; ya^crifu- [ei] met - 1 - def - man-acc who know

(6) cf. Farghal, M, 1986.

(he) ?axaa-k-a.

brother-your-acc.

“I met the man who knows your brother”.

8b - ?? qaabal-tu r-raJul-ai llaǧii ya⁶rifu huwai ?axaa-ka.

Examples (7a) and (8a) show that the subject pronoun position is empty. Examples (7b) and (8b), however, indicate that the appearance of the subject pronoun is extremely unacceptable.

As a matter of fact, Arab grammarians have argued that the invisible subject pronoun is latent, hidden and non-appearing⁽⁷⁾. In other words, the pronoun is not realized phonetically or lexically. To illustrate the grammarians' view, consider the following example.

9 - ?aktubu - [e]	?ad - dras - a	kul yawm.
write - I	def-homework-acc	every day

“I write the homework everyday”.

According to the Arab grammarians, the verb “?aktubu” has an invisible subject pronoun, “ana”, “I”, that does not show up in writing or speech. Put differently, there is an EC in this sentence. If we try to replace the EC with the pronoun “ana”, the sentence will sound extremely unnatural. Not only this, but the pronoun will appear with heavy stress and be placed in a pre-verbal position. This can only be done for emphasis or contrast purposes. Thus, the grammarians' position on this case lends great support to the EC analysis.

1 - Arab Grammarians' account of relative clauses:

In what follows we will present and discuss the Arab grammarians' treatment of relative clauses that contain ECs. Let us take the following example.

10 -

yantasiru	llaǧi ⁽⁸⁾	yasbir ⁽⁹⁾
win-he	who	be-patient

(7) For more on this, see Al-Suyuuti, A, **Ham⁶ il-Hawaami⁶**, vol. 1, Haroon, A and A. Mukkaram, eds., Kuwait: Dar ?lab Huuth ?al⁶ aalamiyeh, 1975. Hassan, A, **?annhwa ?alwafi**, vol. 1, Cairo: Dar ?almaarif, 1971: 219-220. Ibn Hisham, M.B.A, **?awdah ?almasaalik**, Vol.1. Beirut: Dar Ihyaa ?aturaath ?alarabi, 1980: 61. lid, M, **?annhwa ?almusaffa**, Cairo: Maktabat ?ashabaab, 1971: 136.

(8) The full form of “-llaǧi” is “allaǧi”, especially when it stands alone or begins a sentence. In connected speech it is pronounced “-llaǧi”.

(9) The full form of this verb is “yasbiru”. However, when the verb appears in sentence final position, the final “-u” is usually dropped.

“(He) Who is patient wins”.

In their analysis of sentence (10) above, the early Arab grammarians assume that the verb /yasbiru/ includes an “invisible” pronoun, namely, /huwa/, “he”, that refers back to the relative pronoun /ʔallaḥi/. Moreover, /yasbiru + huwa/ constitute a sentence, according to them. They also claim that /ʔallaḥi/ is the subject of /yantasiru/. However, they would very much consider /ʔallaḥi/ as the preposed subject of the verb /yasbiru/, but they can not do that because (a) /yantasiru/ needs a subject and (b) if they want to consider it as subject of both verbs, this would run counter to the Arabic grammatical rule which forbids having two governors (the two verbs (AGR)) for one governee (the subject NP). Thus, they consider /ʔallaḥi/ and add that this pronoun should never appear on the surface. This is another way of saying that this pronoun is not phonetically realized and that is why we will represent it by the empty category [e] in (11) below.

11 - yantasiru - llaḥi. yasbir [ei].

win-he who be-patient - he

“He who is patient wins”.

More recent Arab grammarians propose that on a syntactic level /ʔallaḥi/ is the subject of both verbs in (11). However, from a semantic point of view, /ʔallaḥi/ is the subject of the following verb /yasbiru/, and consequently there is no need for an “invisible” pronoun⁽¹⁰⁾.

The early Arab grammarians’ proposal that /ʔallaḥi/ is subject of the verb /yantasiru/ is counter-intuitive. Two constituency tests can be applied here: a transposition test and a question test. The transposition test shows in (12a) below that /ʔallaḥi/ pairs with /yasbiru/ and not with /yantasiru/. Consider the following:

12- yantasiru llaḥi yasbir

a. ʔallaḥi yasbiru yantasir.

b. *yasbiru- llaḥi yantasir.

(12a) shows that we can prepose /ʔallaḥi yasbir/ and the outcome will be grammatical. However, when we postpose /yantasiru-llaḥi/ the outcome (12b) will be inadmissible as a paraphrase of (12). Applying the question to (12). We will receive a more natural and logical response when we group /ʔallaḥi/ with the following verb than with the preceding one.

Consider the following⁽¹¹⁾:

(10) Cf. Ameireh, K, “ʔaraaʔ fi d-damir ʔalʔaaʔid wa lughat ʔakaluuni Ibaraaḥith”, Unpublished ms., Yarmouk University, Irbid - Jordan, 1988.

(11) Within the Prague functionalism framework. the Questions in (12) and (13) are only variants of the question test for identifying the focus of a sentence.

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- 13 - Q: man yantasir?
Who win
“who wins?”
A: ?allađi yasbir
who be-patient
“who is patient”.
- 14 - Q: man yasbir?
who be -patient
“who is patient?”
A: “?allađi yantasir”
who win
“who wins?”

It can be seen that the response in (13) is natural and logical. Sentence (14), though grammatical, does not make sense. The answer in (14) sounds strange or funny to the native speakers of Arabic. Examples (13) and (14) show that it is more logical and natural to group /yasbiru/ with /?allađi/. Examples (12-14) show that there is more of a syntactic as well as semantic affinity between /?allađi/ and /yasbiru/ than with /yantasiru/ in this structure. This means that the Arab grammarians' choice of /?allađi/ as subject of the verb /yantasiru/ is unfortunate. As a matter of fact, they themselves have indicated that they were forced to choose /alla&i/ as subject of /yantasiru/. They want very much to consider it as the subject of /yasbiru/ but they could not because this would mean leaving /yantasiru/ without a subject. Forced by their own choice and the requirement that every sentence should include a verb and a subject, they have posited an invisible (resumptive) pronoun as subject of the verb /yasbiru/. It can be seen from the previous discussion that the early Arab grammarians' treatment of relative structures as those in (10) is inadequate.

As for modern Arab grammarians, they view the structure in (10) on two levels. Syntactically, they claim that /?allađi/ is the subject of both verbs /yantsiru/ and /yasbir/. Semantically, however, they consider /?alla&i/ as the preposed subject of the verb /yasbiru/ and hence there is no need, according to them, for an invisible pronoun to refer back to /?alla&i/. It does not make sense at all to say that while /?alla&i/ is the subject of both verbs on the syntactic level, it is the subject of only the second verb on the semantic level. In the study of language, the syntactic and the semantic levels are related. Indeed, the semantic level is a projection of the syntactic level. If an element X is the subject of a certain predicate Y, X will be projected as the subject of Y in the semantics, as well. There is no logical

reason whatsoever to allow this element to be the subject of another **predicate** on the semantic level. We can not imagine what sort of mechanism can do that. One of the modern Arab grammarians who adopts this line of reasoning is Ameireh⁽¹²⁾. He does not even mention his reasons for analyzing the structure in (10) in this way. What about the verb /yantasiru/? Does it have a subject? Ameireh does not comment on this. Moreover, he states that on the semantic level there is no need for the invisible resumptive pronoun. What about the syntactic level? Is there a need for the invisible pronoun there? We get no response on this question, either. Ameireh contends that seeing the structure in (10) on two different levels will provide a solution to the problem of having two verbs and one subject. However, by involving two levels, he makes matters worse and further complicates the issue at hand⁽¹³⁾. In the next section, using the empty category strategy within the GB framework, we will present a superior and a more unified account of sentence (10) and similar other constructions.

2 - Arabic Relatives And ECP:

It has been pointed out by Chomsky in a number of his writings (cited earlier) that the distribution of empty categories can be accounted for by the Empty Category Principle (ECP). ECP states that:

15 - Every empty category [e-pronominal], must be properly governed.

a Properly governs B iff:

a Local antecedent governs B.

(i.e.) a. a c-commands B

b. a is coindexed with B (subject to Subjacency)

on the above definition of proper government, Aoun mentions two examples from English⁽¹⁴⁾:

16 - a. *Who do you think [[ti that] [t'i left]]

b. Who do you think [[ti] [t'i left]]

(16a) is unacceptable in English for t'i is not properly governed; the presence of "that" prevents ti from being the local antecedent for t'i. However, in (16b) t'i is properly governed by ti in COMP

(12) Ameireh, K, 1988.

(13) A third possibility of analyzing the structure in (10) has been brought to our attention by one of the referees of this journal. He has stated that in the structure: "yantasiru - llaʃi yasbir", "llaʃi yasbir" can be viewed as one unit taking the place of the subject of the verb "yantasiru". Though this possibility sounds interesting and lends support to our position in pairing /llaʃi/ with /yasbir/ and not with /yantasiru/, it falls outside of the GB framework that we adopt in this study.

(14) Aoun, J. **Linguistic Inquiry**, 1981: 637.

Our analysis of Arabic data shows that Arabic is subject to ECP. Here are two examples:

17 - [[Saafara [r-rajului [[lla&i] [[?ahabbat] [ei] faatima]]

“The man who (m) Fatima loved travelled”.

- 18 - a. *[[?a[°]rif-u] [l-fataata [[lati] [[[farra] [?axu]
 know - I the-girl who escaped brother
 [e]] [[mina] [s-sijni]]
 from the -prison
 “I know the girl who escaped brother
 from the prison”.
- b. [[?a[°]ruf-u] [l-fataatai [[‘lati] [[farra]
 [?axuu[-hai]] [[mina] [s-sijni]]”

In (17) above we argue, following Suaih, that there is universally an introduced COMP (base-generated) that is characterised as [+R], plus relative, and this relative element agrees in number, gender and case with the NP that it modifies⁽¹⁵⁾. Both the empty category and /?ar-rajulu/ in the embedded clause are coreferential and thus receive a similar index as a result of a coindexation rule. compared to (18b), sentence (18a) is rejected in Arabic because [e], the EC is not properly governed; [e] is neither antecedently nor lexically governed in its governing domain, namely the embedded S. [e] is also coindexed with any NP element in its clause.

The above examples undoubtedly show that Arabic data yield to ECP.

Now lets take Ameireh’s example, repeated here as (19), and see how ECP can account for this sentence and similar other sentences in a neat and more adequate manner.

We will assume that the underlying structure for (19) is (20):

19 -

yantasiru	lla&i	yasbir
win	who	be patient

He who is patient (will) wins.

20 - [[yantasiru] [pro] [[yasbir] [pro]]

It can be seen that following both /yantasiru/ and /yasbiru/ there is a pro

(15) Suaih, S, **Aspects of Arabic Relative Clauses**. Ph.D. Dissertation, Indiana University, Indiana, Bloomington, 1980.

element in subject position at D-structure. However, since Arabic is a proi-drop language, this pro element is not phonetically realized and thus it is an EC. The EC above is realized as pro rather than PRO. This is because the location of pro, is governed and assigned case, a location where PRO cannot appear. It should be borne in mind that pro of the higher verb can sometimes be realized as an NP as it appears in (21) below.

21 - [[yantasiru] [r-rajulu] [[llaði] [[yasbir] [pro]

Following Suaih we will assume that this higher NP is optional. Suaih proposes a Relative Clause Head deletion rule to account for sentences such as (20) and (21).

22 - Relative Clause Head deletion rule⁽¹⁶⁾

X NP COMP Y

1 2 3 4 ----- 1 O 3 4 (optional)

At the LF interpretation level /ʔar-rajulu/ pro and /ʔallaði/ in (21) are coindexed together since logically they refer to just one subject, say “huwa” “he”. Hence (21) can be interpreted at LF as (23):

23 - (huwa, x) (x yasbiru, x yantasiru)

That is:

He X (X will win if X is patient)

The appearance of the higher NP /ʔar-rajulu/ immediately after the verb /yantasiru/ is a strong evidence for an EC in this position. This option has not been entertained by the Arab grammarians. If they had admitted the existence of an EC in this position, they would not have been forced to consider “ʔallaði” the subject of /yantasiru/. Moreover, contrary to the Arab grammarians’ position, it can be seen that the relative pronoun /ʔallaði/ in (21) occupies the COMP position, i.e. it is not subject of the verb /yasbiru/. The subject of /yasbiru/ is a proform which is not phonetically realized.

To extend our analysis further let’s look at (24) below:

24 - [[saafara] [r-rajulu] [[llaði] [[ʔahabbat]
[ei] [faatima]]]

In (24) above we argue that there is no wh-movement involved. [e] receives a similar index as /ʔar-rajulu/ through a coindexation rule which roughly says:

25 - Coindexation Rule:

Mark elements that refer to one NP with a similar index.

(25) first coindexes both [e] and /ʔar-rajulu/ then it marks /ʔallaði/ with a similar index after the [+R] is phonetically realized as /ʔallaði/.

(16) See Suaih above.

The ECP account of sentences like (24) runs smoothly as follows:

The empty category [e] is lexically governed by the verb (AGR) /ʔahabbat/. It is also coindexed with both /ʔar-rajulu/ and /ʔallađi/ through the coindexation rule assumed above.

3 - Conclusion:

In this article we have endeavored to show that the Arab grammarians' analysis of Arabic relative clauses is inadequate because they have made no use of ECs. We have also demonstrated that ECs in Arabic relatives yield to ECP as formulated within the GB framework. Further, it has been shown that the ECP syntactic account of ECs in relative structures represents and explains the facts of Arabic in a more revealing and a superior framework, compared to that of the Arab grammarians'.