

Syntactic Analysis of *pro* in Independent Clauses in Arabic Syntax

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Abstract—The objective of this work is to investigate the syntactic properties of the empty category *pro* in Modern Standard Arabic syntax with reference to Chomsky's (1981-1995) on TGG and Jalabneh's (2007) Verb -movement. The syntactic properties are represented by the nominative case, case markers, requirement of Extended Projection Principle (EPP), substitution of expletives and deletion at the logical form. The study concludes that *pro* is assigned the nominative case at S-structure by INFL. It fulfills the requirement of EPP at all levels because of rich Agrs. There are various Agrs markers for *pro*; it cannot be replaced by expletive entities. It is obligatorily deleted at LF.

Index Terms—*pro*, V-movement, expletives, Extended Projection Principle, nominative case

I. INTRODUCTION

Arabic has various types of pronouns that have the structure of a noun phrase. They are classified into three types, namely, (i) the overt attached personal pronouns, (ii) non-attached overt personal pronouns and (iii) the covert personal pronouns. (i) and (ii) are not included in this analysis; however, the focus of analysis is on the third category. The null subject though occupies the subject position of a finite clause but they are covert. It is obvious that finite clauses are visible by the overt or covert occurrence of the tense, namely, the present and the past in which agreement is rich to illustrate the null subject as Arabic is an inflectional language and it is rich in its morphological realizations. However, non finites lack tense properties though they are rich in agreement features.

In the domestic literature, Fehri (1987) argued that there are two types of affixes in Arabic Language, namely, pronominal and non pronominal affixes. The pronominal affixes are referential with a grammatical function. They are assigned the grammatical function subject i.e. they are attached subject pronouns. The non pronominal affixes are non referential affixes but agreement markers whose sole function is to encode the subject gender on the verb. The difference between male and female null subject is obvious with the agreement features attached to the verb.

Maghalsih (2007) argued that the null subject occurs with certain markers prefixed to the verb in Arabic syntax if it is in the imperfective. In such situations, it can be the first person singular masculine and feminine with the marker [ʔu] as in *ʔuwaafiqu* 'I agree', first person plural masculine and feminine with the marker [na] as in *naf^c alu* 'we do', second person singular masculine/feminine with the marker [ta] in *tashkuru* 'you thank', third singular masculine with marker [ya] in *yaʔkulu* 'he eats' and third singular feminine with the marker [ta] in *taʔkulu* 'she eats'. The occurrence of the null subject in Arabic language is not restricted to the present tense; however, it can occur in structures in which the verb is in the perfective tense but with different markers. For instance it can be third person singular and masculine with the zero markers as in *raja^c a- ∅* 'he came' and third singular and feminine with the zero markers as in *raja^c a-t ∅* 'she came'. However, the subject in both tenses can be replaced by an overt annexed or separate pronoun

Alghalayini (2006) argued that there is only one situation in which the null subject can occur in the imperative type of sentences in Arabic syntax with zero markers as in *ʔuktub-∅* 'write!'. The null subject in the imperative form is not realized phonetically but it is easily figured out to be *ʔanta* 'you' because of the zero markers attached to the verb *ʔuktub* 'write'.

In foreign literature, Rizzi (1982) argued that Italian can drop the subject but it is visible with a clitic marker as it has a rich system of inflections. The null subject occurs either in a main clause; it is governed by the verbal inflection. This point means that the null subject is specified by the agreement features with the feature [+ pronominal]. When the inflection of the verb has the feature pronominal, it absorbs the nominative case because of case filter and governs the empty subject. Depending on this theoretical point, the null subject must occur in a context of nominative case assignment of a finite clause. *Pro* in Italian receives its nominative case by tense.

Suner (1983) mentioned that *pro*, in Spanish, has arbitrary reference. In case the null subject is co-indexed with the agreement, it still has its arbitrary interpretation. Thus, the interpretation of *pro* in Spanish is indefinite even if it refers to a number of unknown people.

Picallo (1984) conducted his study on Catalan language in which he found that INFL is the proper governor and assigns the nominative case *pro* of a tensed clause. He further confirmed that *pro* is an empty non-anaphoric pronominal element which receives a case, and it is recoverable in feature specification by means of inflection of the verb.

Huang (1984) argued that it is not only the idea of a rich inflectional morphology system that determines the pro-drop languages; some languages that do not have any inflectional systems at all like Chinese and Japanese; still, they permit pro. However, in these languages, a zero subject pronoun is identified by a noun phrase in a super-ordinate finite clause.

Hyams (1986) argued that the main difference between the pro-drop languages and the non-pro-drop languages is that inflection of the verb in the former is pronominal. He assumed that the head of the pronominal inflection is the agreement which governs and assigns the nominative case to the null subject. The null subject in pro-drop languages acts as the lexical pronouns in receiving the case.

Haegeman (1994) argued that null subject has the properties [+pronominal, –anaphoric]. She emphasized that the rich inflections of a verb is the only property that allows and identifies the absent subject. The most important part that recovers the features of the dropped subject is the agreement features which must be co-indexed with the element it recovers.

Anders (2005) argued that pros are specified but unpronounced pronouns that assign a case by the misinterpreted features of Agrs. Null bound pronouns and null generic pronouns in partial null subject languages like Finish are D-less and so are pros in consistent null subject languages with Agrs such as Spanish and Greek. First and second person pros are deleted in Finish. Null pronouns in languages without Agrs such as Chinese and Japanese are only true instances of pros that is a minimally specified null noun.

Radford (2009) argued that, in null subject languages, any finite verb can have either an overt subject or a null subject. Even though English has the ability to drop the subject in imperative sentences, it is not regarded a null subject language. He assumed that expletive pronouns are originated internally within the verb phrase.

Rezac (2010) argued that agreement is the displacement of pro like terminal containing interpretable ϕ -features to the agreeing head, or D-agreement. Agreement becomes the value of uninterruptable ϕ -features on an independent terminal, Agree. Here, a new argument for the Agree model is developed from floating quantifiers. Agreement is the right analysis for pro in pro drop languages.

II. STATEMENT OF THE PROBLEM

There are certain syntactic properties of the empty category pro in Arabic finite independent clauses that need to be checked. Such properties include the question of government, nominative case, deletion, substitution with expletives, overt N' and filling the gap of Extended Projection Principle (EPP).

III. OBJECTIVES AND QUESTIONS OF THE STUDY

The objectives of this study are to check the syntactic features of pro that occur as the subject of independent clauses in Modern Standard Arabic with reference to Chomsky's (1981, 1982 and 1986) views of the Theory of Government and Binding. For such reasons, to achieve the objectives, the following questions are proposed: (i) Is pro governed by a governor? (ii) Does it have a case? If yes what is it? (iii) Does it fulfill the requirement of Extended Projection Principle at all levels of syntax? (iv) Are there special markers attached to the verb that syntactically indicate the number, person and gender of pro? (v) Can pro be replaced by expletives arguments in Arabic syntax? (vi). Is the deletion of pro optional or compulsory in Arabic syntax?

IV. THEORETICAL PERSPECTIVES (METHODOLOGY)

Chomsky's (1981-1995) theoretical views are important to the extent that they are regarded as universal properties applied to all human languages. He focused on the native speaker's internal power rather his/her performance. He argued that there are many principles and parameters among all languages that they cannot be taught because they are already acquired. He called these principles Universal Grammar (UG). Still some languages have their own features that may differ between a language and another; they are called Parameters. A correct sentence basically consists of a subject and predicate whether the subject N' is visible or not. There is no correct sentence without a subject. However, its occurrence is based on a parametric variation between one language and another. This principle is called in syntax "Extended Projection Principle" (EPP) (c.f. Chomsky, 1982, p. 17). He (1981-1995) categorized noun phrases (N"s) in a language into (i) overt (N"s) and (ii) covert (N"s). The former includes R-expressions; however, the latter includes pro, PRO, and trace. Pro is always the subject of a finite clause, PRO is always the subject of non-finite clauses, and a trace is the result of either NP-movement or wh-movement and is always governed. He (1981) argued that not all languages have pro; however, Spanish, Japanese, Italian, Arabic ... etc have because it is dropped at the LF. He also argued that the choices in universal grammar (UG) are restricted to the question of whether the subject is or is not obligatory overt. For this reason, he assumed that the rule $S \rightarrow NP \text{ INFL VP}$ for those languages in which the subject is obligatory as is the case in English and French; he assumed the rule $S \rightarrow (NP) \text{ INFL VP}$ in which case the subject is optional though INFL remains overt as in pro-drop languages, namely Italian and so on. Thus, the pro-drop parameter entails that with 'weather verbs', in English, the subject has to be filled with the expletives 'it' or 'there' to fulfill the word order of English; however, this case is not available in Arabic, in such case, the sentence remains grammatical though the subject is covert and cannot be replaced by any equivalent element (p. 24-29).

He (1986) explained that the element *pro* is a pure nominal element with the sense of *he* and *they* and so forth, or an expletive '*it*' and '*there*' (p. 164). It is an element that cannot be visible in English but only in the null subject languages. *Pro* is regarded in universal grammar as a kind of language variation of parameters between languages. There are certain languages that have the ability to drop the subject of the finite matrix sentence without being affected.

Chomsky (1981) argued that the empty category principle (ECP) is a mechanism in syntax proposed to account for properties of empty category *pro*: (i) A subject of a tense clause. (ii) It is assigned a case though it is covert because it is rich in \emptyset -agreement features, namely, number, person and gender as well the verb inflection as case assignors. And (iii) it does not have [+ anaphoric] reference with another *N*" in the structure. For instance, let us look at the Italian example [*e mangia* '- is eating']. In it, though the subject is not visible in the verb *mangia* 'is eating', it is still grammatical in the Italian language and represented by [*e*]. This due to the fact that Italian is a *pro*-drop language and accepts the subject to be covert in the sentence. It can be figured out as third person singular and masculine '*he*' from the inflection and the agreement features which are inflected in the primary verb *mangia* (p.256). It is evident that the subject *pro* '*he*' in the sentences is assigned the nominative case. This kind of subject i.e. *pro* does not have any [+ anaphoric] relation with another NP as that of *PRO* because it is free in syntax as that of reference expressions. This element is different from *PRO* in the sense that *pro* checks the nominative case by either inflection (INFL) or agreements (AGRs). It is similar to *PRO* as they both are missing subjects and are assigned a theta role.

Chomsky (1986) stated that Extended Projection Principle (EPP) is defined as "Each finite clause must have an external element i.e. each clause must have a subject" (p.116). It means that every sentence must contain a syntactic subject whether overt or covert in syntax. This subject succumbs to the requirements of case theory. The subject must be assigned the nominative case, in particular. It is evident that if a language is a non *pro*-drop language like English, the subject position sometimes cannot be filled with any *N*", in this situation, it can be filled with the pleonastic '*it*' and '*there*' as a requirement of the EPP. However, in *pro*-drop languages, the subject can be filled by *pro* (ps. 115 and 86). The point is to see the relation between *pro* and the pleonastic elements in connection to EPP. *Pro* can be replaced by an expletive in non- drop languages as English as a specimen of the analysis. The only purpose for the existence of this kind of subject is only to satisfy the (EPP). Such subjects appear basically with '*weather*' verbs as in the specimens (i) [*it is raining*] and [*there is a man in the room.*]. In them, the expletives '*it*' and '*there*' are used to fulfill the requirement of EPP because the sentences can not stand without subjects. Chomsky (1986) argued that Spanish and Italian languages allow the subject to be missing at PF but they require it whether as an argument, an expletive or as an empty category at the all levels. He gave the following example from the Italian language to indicate that the empty category [*e*] is an expletive *pro* [*e parla Giovanni* '*e Giovanni speaks*'] (ps. 116 and 178). In Italian the pleonastic element is permitted to be missed phonetically when the subject is postponed after the predicate as in the specimen. However, the null subject *pro* appears in the subject position of a finite clause which has no overt subject. The empty expletive [*e*] is in an A-position but not in a theta position.

Chomsky (1982, p. 81) argued that the term *pro* refers to the missing subject. He identifies *pro* as the null counterpart of the lexical pronouns and appears as the subject of a tensed clause with specific reference or as an expletive. There is a syntactic relation between *pro* and an expletive in English language and other languages in the sense that expletives are subjects of finite clauses. They are not normal ones because they have no identical identities at all. They have no meaning and no theta roles are assigned to them though they check the nominative case by [INFL]. As far as the case theory is concerned, it is one of the fundamental issues that was Case theory expresses the relationship between *N*"s and their governors, namely, INFL, verbs and prepositions. In *pro*-drop languages mostly *N*"s are visible with certain nominal declension markers as the language is rich in its morphological realizations as that of Arabic. It is the syntactic relation between the governors and the elements they govern that decide the type of case. Each *N*" must get a case in a case position. The case filter principle emphasizes the importance of case for every overt lexical element *N*". Chomsky (1986) stated that "every phonetically realized NP must be assigned (abstract) Case" (p.74). Case assignment is based on the government relation between the two entities. The case and the governor must be next to each other in the same maximal projection. And stated that "If the category α has a case to assign, then it may assign it to an element that it governs" (p.187). The concepts of c-command and government play an essential role all through the case theory. However, the case is determined by the governor that governs the *N*". According to X-bar Syntax, the functional INFL of the maximal projection *I*" constituent commands (c-commands) and governs the subject position. Whether this position is an argument or non argument, it needs to be checked the nominative case by INFL. The government relation that is established between INFL and the *N*" is stated by Chomsky (1981, p, 15) as in (1):

1. "[$\beta \dots \gamma \dots \alpha \dots \gamma \dots$], where

(i) $\alpha = X_0$

(ii) Where \emptyset is a maximal projection, if \emptyset dominates γ then \emptyset dominates α

(iii) α c-commands γ "

This definition of government is further simplified in Chomsky (1991, p. 50) as in (2):

2. " α governs β if α c-commands β and there is no category that "protects" β from government by α . γ protects β in this sense if it is c-commanded by α and either

i) γ is a barrier dominating β

ii) γ intervenes between α and β

The concept of government and command must be local for case assignment. The element α and β must be in a linear order to agree with value of the head parameter of a language. The relation between INFL and its subject is local in I". Thus, as the subject is governed, it must be c-commanded by the same governor as shown in the c-command relation in (3):

3. "[γ α β ...],

"[γ β α ...]

(c.f. Chomsky, 1981, p. 36)

The c-command relation is substituted for the same purpose by maximal command (M-command) and government as in (4).

4. "[β γ α ... γ ...], where

(i) $\alpha = X^0$

(ii) Where \emptyset is a maximal projection, if \emptyset dominates γ then \emptyset dominates α

(iii) α c-commands γ "

Then α and γ are contained in all the same maximal projection"

(c.f. Chomsky, 1981, p. 165)

Chomsky (1981) started his study to pro by mentioning the two properties of the category pro. The two properties are:

(i) missing subject and (ii) free inversion in simple sentences. As AGR is very strong in pro- drop languages, the missing subject receives its case from it. Here emerges the problem of the empty category pro insofar as case is concerned. As mentioned ahead case filter is very much concerned with every phonetically realized N". However, pro is an empty category; then how case is assigned to it? The answer is theoretically given by Chomsky (1982) who assumed that there is no reason why pro should not be governed at S- structure. The category pro is governed by I and AGR and has the nominative case. He said "In the pro- drop languages the EC subject governed by AGR is pro with case" (p. 86). He also said "In a pro-drop language, pro with case can be left in subject position governed by AGR, since its content can be determined by AGR with case" (p. 86). Chomsky (1986) further argued that at D- structure, AGR is part of INFL, governs the subject position. In the S- structure INFL governs the subject if INFL does not move to the main verb. If AGR is specified at D- structure for case then it is a pro. After that there will be a tendency to spell out AGR in the S-structure and PF component. As a matter of fact the realized case in some languages, particularly Italian appears as diacritics or agreements on the verb. The connection between agreement features and pro is strong and Italian has the ability to drop the subject as in (5).

D- Structure

5a. pro parlo

I spoke

S- Structure

5b. pro parlo

I spoke

PF

5c. parlo

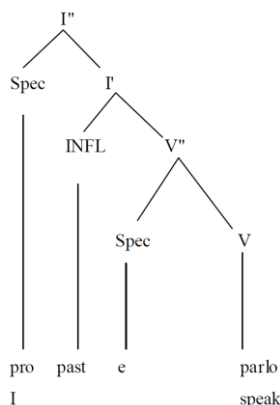
spoke

'I spoke'

(Chomsky, 1982, p. 78)

(5d) is the tree diagram representation for (5a and b)

5d.



In (5d), the functional category 'past' governs the empty pro 'I' to which the nominative case is assigned under local government under I" in Italian. In short, the Chomsky's views will be used to analyze the Arabic data regarding the properties of pro. GB style of tree-diagrams will be used in this work.

V. THE ANALYSIS OF PRO IN ARABIC SYNTAX

The following analysis covers a detailed of pro that occurs as the covert subject of merely independent clauses in an attempt to check the concept of government, nominative case, requirement of EPP, Agrs markers and deletion of pro in Arabic syntax.

A. Government and the Assignment of Nominative Case of pro

Depending on the previous theoretical perspectives, Chomsky (1981 and 1995) argued that pro in pro-drop languages must be governed by a governor. The governor must be the INFL, more strictly the Agr element. The result of the government is the nominative case assigned to it at the S-structure. The c-command relation is the corner stone for the government relation. He means by c-command that node A c-commands node B if every branching node dominating A also dominates B and neither A nor B dominates the other in X-bar theory. X-bar theory specifies the actual structure of all phrases and their relations in a sentence. The hierarchical structure of a sentence expresses the pair relations i.e. the relations between a governor and a governee that is pro in this work. Pro must be available in the sentence to satisfy the requirements of the EPP by which its grammaticality is determined. Arabic is a pro-drop language and pro is covert at LF and the sentence remains good. This category must be governed to get the nominative case by a case assignor, namely INFL/ Agrs as in (6).

LF

6a. ?u - hibb- u- al- cilm- a
1st, sg, masc./fem love pres. det knowledge acc
'I love knowledge'

(6b) is the D-structure representation for (6a)

6b. pro ?u - hib- u- al - cilm- a
I 1st, sg, masc./fem love pres det knowledge acc
'I love knowledge'

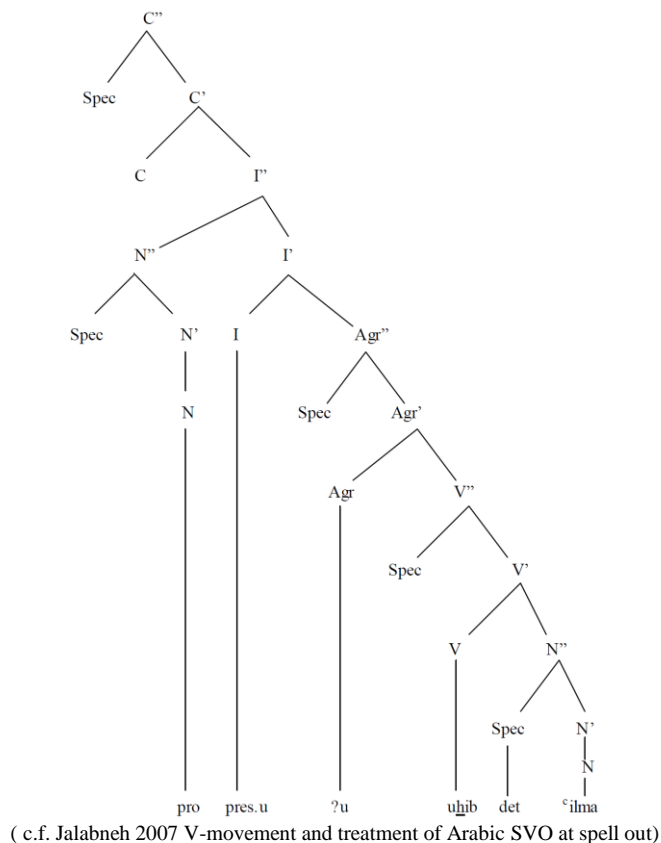
(6c) is the S-structure representation for (6b).

S- structure

6c. pro ?u - hib- u- al - cilm- a
I 1st, sg, masc./fem love pres det knowledge acc
'I love knowledge'

The processes of government and case assignment of the nominative case are performed in the tree diagram as in (6d) of (6c):

6d.



In (6d), *pro* 'I masc / and fem.' is governed by INFL under the maximal projection *I'*'. The second step is the V-movement of *hib* 'love'. It moves to the node *Agrs* to check the agreement feature available in the structure as first person feminine and masculine and it becomes *?uhib* 'love'. Then, it must move to the node INFL to check the present tense of [u] and becomes *?uhibu* 'love'. In a final movement, the same verb has to move to the node [C, C'] to initiate the clause at LF without disturbing other internal arguments. This subject is to be dropped at the interface level to meet the logical form. It is evident that if any other *pro* be used in a sentence when the verb is present, the same case assignment of the nominative is applied but *pro* is visible with different *Agrs* at the S-structure. For example, it can be [nu] 'we' first plural masculine and feminine as in *nu-hibu*, [tu] 'you singular and masculine' as in *tu-hibu*, [yu / or ya] 'he' as in *yu-hibu* and *ya-hibu*, and [ta] 'she' as in *ta-hibu*.

Not only does *pro* occur as a subject if the verb is in the imperfective, but also if it is in the perfective form as in (7).

LF

7a. *lacib-* *a-* \emptyset *bi* *al* *kurat-* *i*
 play past 3rd,sg,masc with det ball inst
 'He played with a ball'

(7b) is the D-structure representation for (7a)

D- Structure

7b. *pro* *lacib-* *a-* \emptyset *bi* *al* *kurat-* *i*
 he play past 3rd,sg,masc with det ball inst
 'He played with a ball'

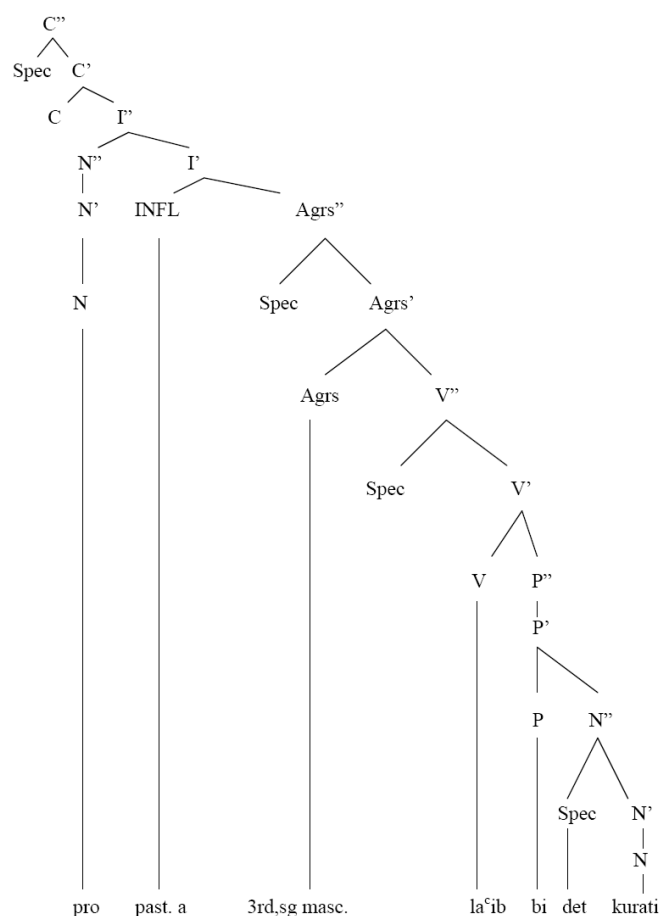
(7c) is the S-structure representation for (7b).

S- Structure

7c. *pro* *lacib-* *a-* \emptyset *bi* *al* *kurat-* *i*
 he play past 3rd,sg,masc with det ball inst
 'He played with a ball'

The processes of government and case assignment of the nominative case are performed in the tree diagram as in (7d) of (7c).

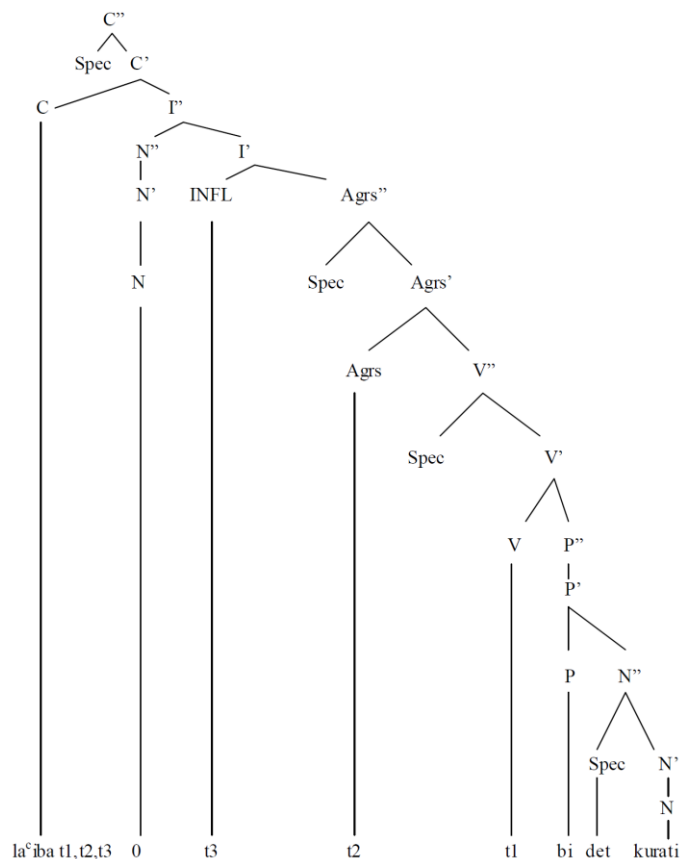
7d.



In (7d) *pro* 'he' is governed by INFL under the maximal projection *I'*'. The second step is the V-movement of *lacib* 'play'. It moves to the node *Agrs* to check the \emptyset -agreement feature represented as third person and becomes *lacib* 'play'.

Then it must move to the node INFL to check the past tense of [a] and becomes *laciba* ‘played’. In a final movement, the same verb has to move to the node [C, C’] to initiate the clause at LF without disturbing other internal arguments as in (7e). This subject is to be dropped at the interface level to meet the logical form of this clause.

7e.



It is evident that only *pro* ‘she’ with the Agrs [t] can be used in this context and no other *pro* is used.

The category *pro* is also visible if the verb is in the imperative form when it is 2nd person singular and masculine as in (8).

LF

8a. ?ibtasim 0 !
smile pres.
‘Smile’

(8b) is the D- structure representation for (8a)

D- Structure

8b. *pro* ?ibtasim 0 !
you, sg, masc smile pres.
‘Smile’

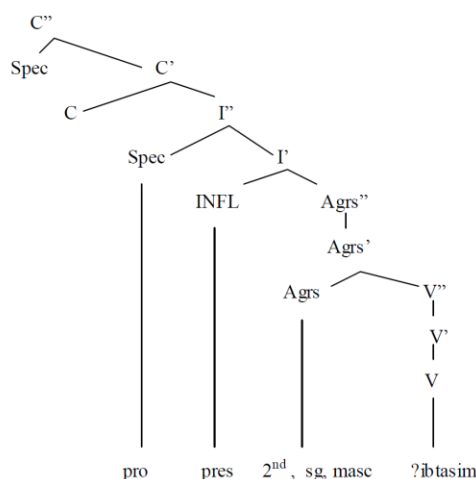
(8c) is the S- structure representation for (8b)

S- Structure

8c. *pro* ?ibtasim 0 !
you, sg, masc smile pres.
‘Smile’

(8d) is the tree diagram representation of case assignment for (8c).

8d.



In (8d), *pro* 'you' is governed by INFL under the maximal projection I'. It is the nominative case in this position. After this process, the verb *?ibtasim* 'smile' has to move to Agrs to check the \emptyset -agreement feature represented as second person and becomes *?ibtasim* 'smile'. Then, it must move to the node INFL to check the present tense of [0] and becomes *?ibtasim* 'smile'. In a final movement, the same verb has to move to the node [C, C'] to initiate the clause at LF. This subject is to be dropped at the interface level to meet the logical form of the imperfective in Arabic syntax.

B. Expletives and *pro* in Arabic Syntax

There is a syntactic relation between *pro* and expletives in the sense that both of them are subjects of a finite clause and they satisfy the EPP. It is obvious that expletives have no theta role i.e. there is no identical identities for them at all; they must have a case; while, *pro* has both a case and theta role. As compared to English, expletives are shown by 'it' as in [it is raining] and 'there' as in [there seems to be a thief outside]. Theoretically, both of them are posited at S-structure to meet the requirement of EPP. Thus, they are assigned the nominative case by the case-assignor INFL but without assigning a theta role because theta marking takes place at D-structure. The expletives appear in non pro-drop languages as a non-argument overt subject while *pro* appears as a covert subject in pro-drop languages. Chomsky(1982) argued that the subject position of a finite clause can be filled by *pro* but not PRO. The concept of expletives in Arabic has not been explained clearly in the literature; however, this work takes the lead in discussing this concept from new point of view. It is obvious that Arabic is like other languages insofar as dealing with structures that contain the expletive subjects but with certain metric variations with regard to quality of the N'' that occurs in the subject position. If the verb refers to weather-types, Arabic opts for *pro* instead of expletives at D-structure and it is assigned both a theta role at D-structure and nominative case at S-structure; it meets the requirement of EPP at all levels of syntax as in (9).

9a. ?amtar- a - t al- baarihata
rain past 3rd, sg, fem det yesterday
'It rained yesterday'

(9b) is the D-structure representation for (9a).

D-structure

9b. pro ?amtar- a - t al- baarihata
she rain past 3rd, sg, fem det yesterday
'It rained yesterday'

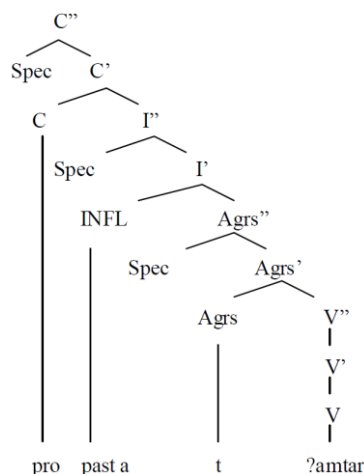
(9c) is the S-structure representation for (9b).

S-structure

9c. pro ?amtar- a - t al- baarihata
she rain past 3rd, sg, fem det yesterday
'It rained yesterday'

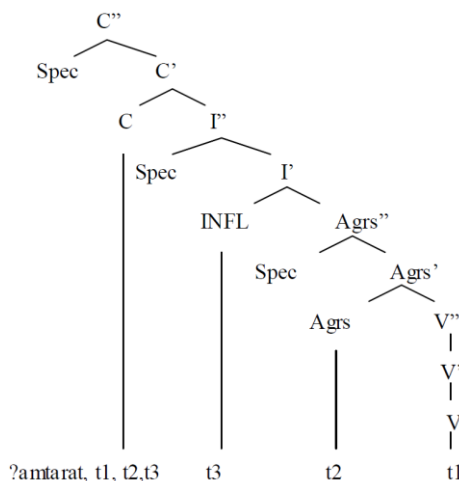
(9d) is the tree-diagram representation for (9c).

9d.



In (9d), the subject position is filled by the category *pro* which is visible with *Agrs* that is the feminine marker [t]. The category *pro* is governed by the case assignor *INFL* under the maximal projection of *I''* to which the nominative case is assigned. It is obvious that *pro* can theoretically assign a theta role because it is posited at D-structure to meet the requirement of the EPP at all levels whether the subject is overt or covert. Thus, it is assigned the theta role of instrument by the *V''* '?amtarat' 'rained'. The category *pro* is omitted at the interface level after the verb '?amtar' 'rain' moves to the position of [Agrs, Agrs'] to check the agreement features of the feminine marker [t] and to the position of [INFL, I'] to check the past tense marker of [a]. In a final movement, it has to move to [C, C'] to initiate the word order of Arabic at LF as in (9e).

9e.



Suppose the subject is specified in (9c), then it can be the entity *al-samaa'u* 'the sky', or *al-ghaymatu* 'the cloud'. This *N''* occupies the subject position at all levels getting the same theta role and being assigned the same nominative case by the same case assignor, namely, *INFL*. The only difference between the two subjects is that in the latter the subject cannot be dropped as it becomes a separate referent expressions (R-expression). Other similar verbs that are related to weather are: '?athlajat' 'snowed' that refers to *al-samaa'u* 'the sky', or *al-ghaymatu* 'the cloud', '?ashraqat' 'rose' that refers to *al-shmasu* 'the sun', *nawwarat* 'enlightened' that refers to *al-samaa'u* 'the sky' and '?abraquat' 'enlightened' that refers to *al-ghaymatu* 'the cloud'.

The category *pro* can occur in similar structures which are equal to the expletive of non-drop languages. For instance, the verbs *yabduu* 'seem' and *yazhar* 'appear' are specimens of the category. The instance (10) illustrates the analysis of the former verb.

LF

10a. ya- bduu- 0 - Ø ?anna- hu taalib- un
 3rd,sg, masc seem pres. 3rd,sg, masc that he student nom
 'He seems that he is a student'

(10b) is the D-structure representation for (10a).

10b. pro ya- bduu- 0 - ?anna- hu taalib- un
 he 3rd,sg, masc seem pres. that he student nom
 'He seems that he is a student'

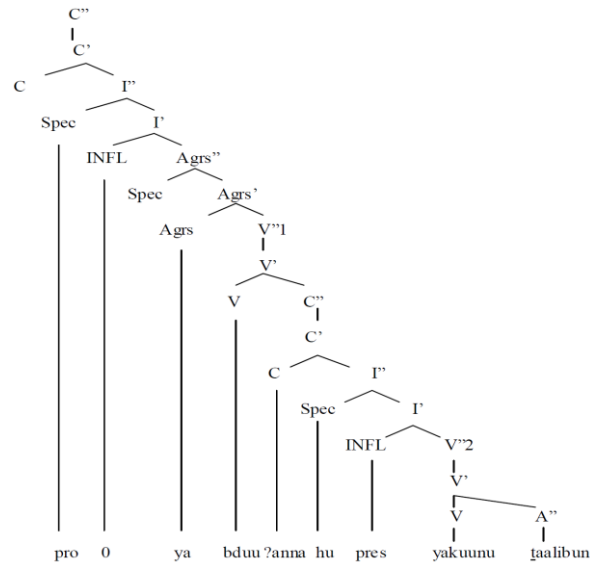
(10c) is the S-structure representation for (10b).

S-Structure

10c. pro ya- bduu- 0 - ?anna- hu taalib- un
 he 3rd,sg, masc seem pres. that he student nom
 ‘He seems that he is a student’

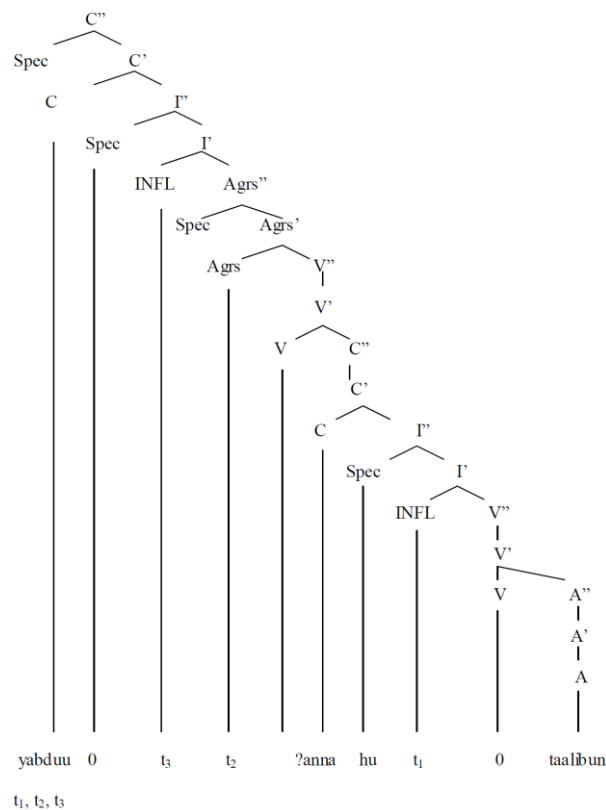
(10d) is the tree-diagram representation for (10c).

10d.



In (10d), the subject position matrix sentence is filled by the category *pro* which is seen by the Ags marker [ya] and confirmed by the attached personal pronoun 'hu'. This prefix is to be attached to the verb *bduu* 'seem' in the process of derivation. The category *pro* is governed by the case assignor INFL under the maximal projection of I' to which the nominative case is assigned. The category *pro* is omitted at the interface level after the verb *bduu* 'seem' moves to the position of [Ags, Ags'] to check the agreement features of the third masculine marker [ya], to the position of [INFL, I'] to check the present tense and to move to [C, C'] to initiate the word order of Arabic at LF as in (10e).

10e.



Though Agrs is maintained in the verb *yabdu* 'seem' pro can be manifested by other persons such as *?anna- ha* 'that she', *?anna- hum* 'they masculine', *?anna -hunna* 'they feminine', *?anna -humaa* 'they daul', *?anna-ka* 'you singular and masculine', *?anna-ki* 'you singular and feminine', *?anna-kumaa* 'you dual', *?anna-kum* 'you plural and masculine', *?anna-kunna* 'you plural and feminine', *?anna - ni* 'I' and *?anna - ni* 'we'. In short, the same process is applied to the verb *yazhar* 'appear' in Arabic syntax as it has the same sub-categorization and constituent selects C" headed by the complementizer *?anna* 'that'. In short, V-movement which was propagated by Jalabneh (2007) is necessary to meet the directionality of case assignment, to avoid multiple movements of N"s and to meet the word structure order VSO at LF in Arabic syntax.

VI. CONCLUSIONS

Though pro is a covert entity, it is assigned the nominative case by INFL under government. Theoretically, it is assumed that there is no reason why pro should not be governed at S- structure. The category pro is governed by INFL /and AGR and has the nominative case. Chomsky (1982) stated that "In the pro- drop languages the EC subject governed by AGR is pro with case" (p. 82 - 86). It was proved that pro is governed by INFL under I" as in (6). It is assigned the nominative case by the overt tense markers of INFL and supported by rich Agrs which help to specify the type of pro referent at S-structure. In (6) - in the imperfective form of the verb- pro can be visible with the Agrs [nu] 'we' as in *nu-hibu*, [tu] 'you singular and masculine' as in *tu-hibu*, [yu] 'he' as in *yu-hibu* and [ta] 'she' as in *ta-hibu*. Pro is also assigned the nominative case if the verb is in the perfective form as in (7); it refers only to third person singular and masculine 'he' with zero markers of Agrs and third person singular and feminine 'she' with [t] Agrs marker. Likewise if the form of the verb is in the imperative as in (8), the category pro is assigned the nominative case in the same process of government if the subject is merely second person singular and masculine. It was proved that pro fulfills the requirements of Extended Projection Principle in Arabic syntax. It is due to the fact that no sentence can be constructed without fulfilling the subject position with a subject whether covert or overt. Thus, in (6-8), the subject position is filled with pro at all levels of syntax.

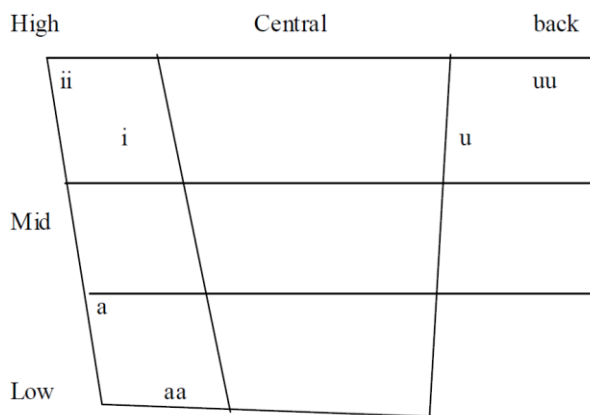
There are a number of Agrs markers that specify the kind of pro in Arabic syntax at LF. For instance, if the verb is in the imperfective, the visible markers can be exemplified with different verbs as follows: ?u (I) as in *?uhibbu* 'pro love', nu (we) as in *nuhibbu* 'pro love', tu (you, masc) as in *tuhibbu* 'pro love', tu (she) as in *tuhibbu* 'pro loves', yu (he) as in *yuhibbu* 'pro loves'. Another example is ?a as in *?aktubu* (I) 'pro write', na (we) as in *naktubu* 'pro write', ta (you masc) as in *taktubu* 'pro write', ta (she) as in *taktubu* 'pro writes' and ya (he) as in *yaktubu* 'pro writes'. If the verb is in the perfective the visible marker is [t] (she) as in *lacibat* 'pro played' however, the third person singular masculine (he) is visible with zero markers as in *laciba* 'pro played'. In case the verb is imperative, pro as a second singular masculine only is seen with [?i / or ?u] Agrs markers for certain verbs as in *?ibcath* 'send' and *?uktub* 'write' and with zero Agrs markers as in *kul* 'eat'. It is proved that pro- drop languages do not accept expletives as subjects and instead pro occurs. This empty category assigns the nominative case at the S-structure. It is referential because the subject could be third person singular and feminine as in (9) which refers to *al- samaa?*u 'the sky' or *al-ghaymatu* 'the cloud', or *al-shmasu* 'the sun'. The category pro also could be third person singular and masculine whenever it occurs with subject raising verb of *yabdu* 'seem' as in (10).The subject pro is compulsory dropped at interface and LF. However, if the subject is to be overt, it has to be a separate pronoun or R- expression but they are not considered pros. Insofar as the V-movement is concerned, the verb is posited to the right of the matrix subject pro to perform certain functions such as theta marking in the V" and maintain the directionality of theory and not to violate any kind of principles. And then, the verb has to move to Agrs node to check agreement subject features and then to INFL position to check tense. The verb in a final movement has to move to occupy [C', C"] position to initiate the clause at PF.

VII. transliteration of the Arabic phonemic symbols of consonants

Arabic	Transliteration	Arabic	Transliteration
أ	ʔ	ض	d
ب	b	ط	t
ت	t	ظ	z
ث	th	ع	f
ج	j	غ	gh
ح	h	ف	f
خ	kh	ق	q
د	d	ك	k
ذ	dh	ل	l
ر	r	م	m
ز	z	ن	n
س	sh	و	w
ص	s	ي	y

Notice: The researchers have a reference to the transliteration symbols only while writing the Arabic words the texts .(c.f. Jalabneh, 2007)

VIII. STANDARD ARABIC PHONETIC SYMBOLS OF VOWELS



(c.f. Fari and et al, 2006, p. 74)

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