THE NULL *PRO* SUBJECT IN EARLY MODERN ENGLISH AND STANDARD ARABIC*

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Abstract: This paper seeks to explore the syntax of the null *pro* subject in Early Modern English, Standard Arabic and Modern Standard English and point out how the pro-drop parameter works in these three languages. The objective is to show how in languages with rich agreement inflection like Early Modern English and Standard Arabic, the null *pro* is allowed in the structural subject position of finite clauses, whereas in languages with poor agreement morphology like Modern Standard English it is not permitted. It further illustrates that the rich AGR inflections in Early Modern English and Standard Arabic serve to identify the null *pro* subject, since the feature-content of the latter (i.e. the *pro*) can be recovered from the AGR morpheme on the verb morphology. However, the AGR morpheme on the verb in Modern Standard English is too weak to pick up the subject features.

Following Chomsky's (1995) minimalist analysis, we show how the nominative Case and agreement features of the (*pro*) subject are licensed and how the tense features of the verb are checked in Early Modern English and Standard Arabic. Furthermore, we present an alternative analysis which accounts for the occurrence of the null *pro* in finite clauses of Standard Arabic. We assume that the D-feature of I(NFL) is strong in the VSO and SVO structures with null *pro* subjects in Standard Arabic. Given this, I argue that the subject *pro* moves from the VP-internal position to the thematic and structural subject position of the sentence occupying [Spec, IP] for feature licensing purposes.

Key words: null *pro* subject, AGR morpheme, Case, minimalist, D-feature, agreement inflection, VP-internal.

1. Introduction

This paper attempts to show that Early Modern English and Standard Arabic are pro-drop languages, whereas Modern Standard English is not. The objective is to illustrate that the parametric variation between Early Modern English and Standard Arabic, on the one hand, and Modern Standard English, on the other, can be attributed to the relative strength of agreement inflections on the verb. It demonstrates that in Early Modern English and Standard Arabic, with rich verb morphology, strong inflection is responsible for licensing features of the subject *pro* and the verb.

This study is organized as follows. Section 2. provides a theoretical background of the previous studies on the null *pro* subject. Section 3. discusses the rich agreement inflections marked on the verb morphology in Early Modern English and explores the morpho-syntactic occurrence of the null *pro* subject in finite

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clauses. It illustrates that Early Modern English carries strong agreement features which consequently force overt movement of the verb from the head V position of VP to the functional head I(NFL). It also examines how the strong features of the subject (i.e. nominative Case and agreement features) and the tense features of the verb are checked in a Spec-head agreement configuration. Section 4. investigates the null *pro* in Modern Standard English and explains why the latter is not a pro-drop language. Section 5. reviews the previous accounts of the traditional Arab grammarians and linguists on the null *pro* subject in Standard Arabic. In this section, we investigate the morpho-syntactic properties of the null *pro* and point out how the subject pronouns can be dropped in Standard Arabic. We also provide an analysis based on the minimalist framework of Chomsky (1995), where we show how the null *pro* subject moves from [Spec, VP] to [Spec, IP] in order to license its morphological features (nominative Case and agreement features) in a Spec-head agreement relation. Following Chomsky's (1995) minimalist analysis of English, we assume that the D-feature of I(NFL) is strong in the VSO and SVO structures with null *pro* subjects in Standard Arabic. We also assume that the V- feature of I(NFL) is invariably strong in Standard Arabic, given that strong agreement inflection forces movement of the subject and the verb for feature licensing considerations. We also present an alternative minimalist analysis which accounts for the *pro* subject in Standard Arabic, how it originates in [Spec, VP] and why it moves to [Spec, IP] for feature licensing. Section 6. summarizes the findings of the study.

2. Theoretical Overview

The phenomenon of the *pro*-drop property, found in languages with rich agreement inflections, has received considerable attention in the syntactic analyses of transformational-generative grammar. It has been the subject of extensive discussion during the past decades. We shall review the most important issues that are relevant to the *pro*-drop phenomenon. We shall address two issues: the nature of the *pro*-drop subject and the morpho-syntactic properties that a language must have in order to allow the null category *pro*.

The term "pro-drop" stems from Chomsky's (1981) *Lectures on Government and Binding* as a cluster of properties of which the null *pro* subject was one. Chomsky (1981) discussed the null subject in Spanish, and other similar languages having the pronominal anaphor PRO, and pointed out that the subject position is ungoverned even in finite clauses in *pro*-drop languages. Given this, Chomsky suggested that the attachment of inflectional affixes to the verb is effected by a rule of affix movement ("Rule R"), which lowers inflectional features from INFL to the verb. This rule could illustrate whether or not a language displays the *pro*-drop subject. However, the claim that the *pro*-subject is a pronominal anaphor was abandoned in Chomsky (1982) and in subsequent accounts (1986), (1991) and (1995), on the account that the verb is generally agreed to raise to INFL in the syntax. So, the preceding identification of the *pro*-drop subject as PRO was totally rejected due to differences in referential properties: the former does not share the latter's lack of independent reference (Harbert 1995:221).

It has been observed that the *pro*-drop subject has a specific reference, when it is not pleonastic. Besides, the null category *pro* has the function of a pure

pronominal. Chomsky (1982) points out that *pro* is not [+anaphor, + pronominal] (i.e. the feature of PRO) but [- anaphor, + pronominal]. Hence, *pro* is taken to be the null counterpart of overt pronouns. Harbert (1995:222) illustrates that since the *pro*-subject is not a pronominal anaphor, its occurrence is not linked to the special property of subject positions which is relevant for PRO.

Furthermore, in Chomsky's (1982) theory, *pro* is inserted in the structure to receive a theta role and discharge the Case and AGR, which it carries in pro-drop languages. Chomsky (1982) views the pro-drop parameter in terms of Case. That is, AGR is assumed to have Case in pro-drop languages (as in Italian) and to lack Case in non-pro drop languages (as in English). In this connection, Harbert (1995) observes that the *pro*-drop is associated with agreement morphology in two respects. First, *pro*-drop occurs in languages with rich subject-agreement morphology, such as Italian and Spanish, but not in languages with relatively impoverished agreement morphology, such as French and English. Second, pronouns can have a null realization even in non-subject positions in some languages, where those non-subject positions are associated with agreement morphology. Given this, Huang (1989) stresses that, in perfect tense examples in Pashto, where there is object agreement morphology marked on the verb, object pronouns may be null. On the basis of the richness of subject-agreement considerations, many linguists were let to conclude that the licensing of the null *pro* subject is associated with the rich AGR morphology. However, Perlmutter (1971) argues that the mere ability to recover the feature-content of the subject from the agreement inflection is not enough, since more is involved. It has been noted in Chomsky (1982) that the association between the null subject *pro* and rich AGR morphology was not direct. The licensing of *pro* in subject positions is achieved when INFL determines its content features through nominative Case assignment under strict feature matching. Given this, Harbert (1995) states that this usually happens in languages where INFL is generated with nominative Case features in the base. On the other hand, there are other languages where nominative Case assignment is not done via feature matching, but rather, under structural government, which is not enough for feature-content recovery. Harbert (1995:223) stresses that most subsequent analyses on the null *pro* subject "have implemented the connection more directly; empty elements must be identified- i.e. their phi-feature content (categories such as person, number, gender) must be recoverable from their syntactic surroundings." As far as the identification of *pro* is concerned, Rizzi (1986a) and Borer (1986a) suggest that this is achieved via coindexation with rich AGR morphology.

Before attempting to translate the general association between rich AGR morphology and null *pro* category into an exhaustive theory of *pro*, Safir (1985b), Harbert (1995) and Rizzi (1986a) distinguish between the degrees of the null *pro* subject and classify the languages on the basis of the following typological difference. There are languages like English which do not permit the overt subject pronoun to be "dropped" (whether it is a thematic or pleonastic pronoun). There are languages like Spanish which permit the "dropping" of both the thematic and pleonastic pronouns. There are, however, other languages like German which allow the pleonastic pronoun to be omitted but not the referential pronoun.

Having observed the preceding attempts at arriving at a comprehensive theory of *pro*, let us now briefly point out the major accounts that let to the construction of such a theory. It should be pointed out that Rizzi's (1986a) analysis is regarded to be the most fundamental adequate account on the null *pro* subject on the basis of which the subsequent research and morpho-syntactic analyses have developed. In attempting to provide a unified account Rizzi (1986a) proposes two distinct conditions on *pro* – a *Licensing* condition, applying to all instances of *pro*, and an *Identification* requirement, applying to referential/argumental *pros*. Rizzi (ibid.) illustrates that *pro* is licensed if Case is governed by a licensing head, which can vary from language to language. In languages, like Italian and Spanish, where the null *pro* occurs in the subject position, INFL is a licensing head. In a language like English, where there is no head counted as a licensing head, the null *pro* subject is not permitted to occur in any position at all. Besides, the null *pro* has to be identified, thus satisfying the identification requirement. It must be coindexed with the features of person/number on its Case-governing head.

On the other hand, there are other linguists who have provided some accounts in the attempt to develop theories on the *pro*-drop which can offer an adequate analysis of the phenomenon in both language types. The objective is to capture the generalization that the pro-drop subject appears to occur in languages which have rich agreement paradigms (as in Italian, Spanish) or do not have agreement inflection at all (as in Chinese), but not in languages with partial agreement morphology (as in English and French). In this connection, Jaeggli and Safir (1989) point out that it is the morphological uniformity, but not the rich agreement paradigm, which has an essential role to play in the theory of *pro*. Jaeggli and Safir propose the morphological uniformity on the basis which they argue that Spanish and Japanese are morphologically uniform: the former has inflectional endings throughout the paradigm whereas the latter does not have at all. They state that English is not, since some forms have endings (such as *she leave-s*) while others do not (*I leave*). They conclude that *pro* is licensed only in those languages which do have morphologically uniform paradigms.

Furthermore, Adams (1987) and Gilligan (1987) explore the syntax of the null *pro* subject in German and observe that in German *pro* can be licensed by morphological uniformity but it can not be identified. Other attempts to study the null *pro* is also seen in Bennis and Haegeman (1984) in Flemish and Huang (1989) in Chinese.

3. The Null *pro* Subject in Early Modern English (EME)[1]

3.1. Agreement Inflections in Early Modern English

As there are universal principles shared by all human languages in the Universal Grammar (UG) which govern the world languages, there are also cross-

[1] By Early Modern English (EME) it is meant the type of English that was found in the early seventeenth century, i.e., at about the time when Shakespeare wrote most of his plays (between 1590 and 1600). However, Berk (1999:5) mentions that the EME period spans from (1500-1800). The example sentences of Early Modern English illustrated in this study are cited from Shakespeare's plays.

linguistic variations among languages; such variations (i.e. parameters) are language-specific. One of these language variations is the null *pro* subject parameter. In this section we examine the null *pro* subject in Early Modern English with a view to pointing out the relatively rich system of agreement inflections marked on the verb morphology and show to what extent Early Modern English differs from Modern Standard English in this regard. We focus on finite non-auxiliary verbs and show their morphological features which force overt syntactic movement. Let us illustrate this point in the following examples in (1), data is cited from Radford (1997:119).

1a. Thou say***st*** true. (Petruchio, *Taming of the Shrew*, IV. iii)
b. She take***th*** most delight in music, instruments and poetry. (Baptista, *Taming of the Shrew*, I. i)
c. Winter tame***s*** man, woman and beas. (Grumio, *Taming of the Shrew*, IV. i)
d. It look***s*** ill, it eats drily. (Perolles, *All's Well That Ends Well*, I .i)

Sentences in (1) demonstrate that Early Modern English has a rich system of agreement inflections. The agreement affixes marked on the verb morphology in (1) illustrate that the inflectional ending suffixed to each finite verb does agree with its respective subject in each sentence. In this connection, Radford (1997:119) stresses that in Shakespearean English three present-tense inflections are found: second person singular *+st*, third person singular *+th* and *+s*. It can be noted that the three present tense inflections are suffixes which mark the agreement features between the verb and the subject of the sentence. This is shown in (1a) where the second person singular suffix *+st*, marked on the finite non-auxiliary verb *sayst*, triggers agreement with the nominative second person singular subject *Thou* 'You'. In (1b) the third person singular marker *+th* suffixed to the finite verb *taketh* is in agreement with the nominative third person singular subject 'She'. It can be noted in (1c) and (1d) that the verb ending is the third person singular *–s* which agrees with a non-human third person singular subject. A closer look at finite non-auxiliary verbs and their respective subject NPs reveals that Early Modern English finite verbs exhibit a strong agreement paradigm due to the fact that it has a relatively rich system of verb-agreement inflections.[2]

3.2. *pro* in Early Modern English

pro is a pure pronominal which lacks phonetic content, the empty counterpart of lexically realized pronouns such as 'she', 'he', 'it', 'they' … etc. By *pro*, it is meant the null (non-overt) *pro* subject which has different Case properties from the PRO subject of infinitives; PRO has null Case. *pro* is conventionally designated as little/small *pro* in generative grammar, whereas its big counterpart is known as big PRO. A null subject is a subject which has grammatical/ semantic properties but no overt phonetic form. The term 'null subject' usually denotes the null *pro* subject,

[2] See Rohrbacher (1994) and Vikner (1995) for more details on the correlation between the strength of agreement features and the relatively rich system of agreement inflections in different languages.

found in finite affirmative or interrogative sentences in languages like Standard Arabic, Italian and Early Modern English, and not the covert subject, found in imperative sentences like *open the window!*, or the covert PRO subject, found in control structures like *The criminal tried to kill the man*.

The preceding section has demonstrated that finite non-auxiliary verbs in Early Modern English carry strong agreement features (i.e. strong person/number specifier features). Given this, the question is: was Early Modern English a null *pro* subject language? The answer to this question can be illustrated in the following examples of Early Modern English in (2) along with their explanation below.

2a. Hast any more of this? (Trinculo, *The Tempest*, II. ii)
b. Sufficeth, I am come to keep my word. (Petruchio, *Taming of the Shrew*, III. ii)
c. Would you would bear your fortunes like a man. (Iago, *Othello*, IV. i)
d. Lives, sir. (Iago, *Othello*, IV. I, in reply to 'How does Lieutenant Cassio?')

Before we proceed to explain the Early Modern English sentences in (2), it is important to provide their present-day counterparts in (3) which require obligatorily the presence of overt subject pronouns, the latter are italicized for convenience.

3a. Have ***you*** any more of this?
b. ***It*** is enough that I have come to keep my word.
c. ***I*** wish you would bear your fortunes like a man.
d. ***He*** is alive, sir.

A careful look at the difference in the data demonstrated in (2) and (3) shows that in the Early Modern English sentences in (2) the null *pro* subject occurs in nominative positions because it is the subject of a finite clause. It can be observed in (2) that the finite non-auxiliary verbs can have a null *pro* subject and such verbs carry strong agreement features. The difference between (2) and (3) illustrates that Early Modern English has a relatively rich system of agreement inflections marked on the verb. These agreement inflections serve to identify the morph-syntactic properties of the null *pro* argument. For example, in (2a) the agreement marker *+st* on the verb *hast* is a second person singular inflection and serves to identify the *pro* subject as a second person singular subject which has the same morpho-syntactic properties as *Thou*; thus satisfying the identification requirement proposed by Rizzi (1986a) that applies to argumental *pros*. This shows that in Early Modern English the feature content of the subject can be recovered from the verbal agreement inflections on the verb morphology, because finite verbs carry strong agreement features and consequently allow a null *pro* in finite clauses.

3.3. Checking Theory: Chomsky (1995)

The checking theory of Chomsky (1995) is an alternative to the derivational approach to inflectional morphology. It is assumed in this minimalist theory that lexical items are inserted in the structure with their inflectional morphology. For example, verbs are inserted fully inflected under V position of VP. The functional elements like T and Agr do not dominate inflectional morphemes; rather they

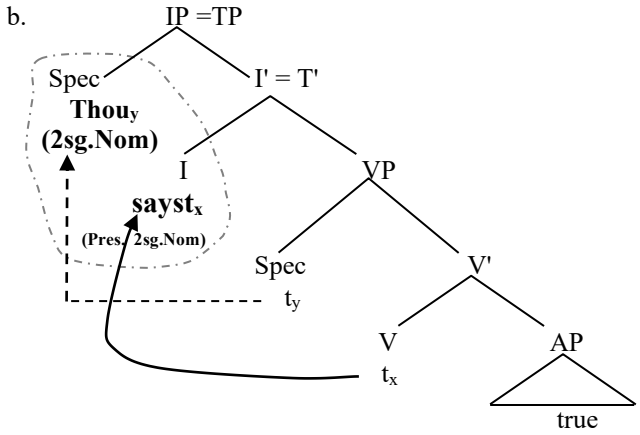
dominate bundles of abstract features. Since these features are symbols in the syntactic representation, they have to contribute to interpretation. Functional features have to be checked in the course of derivation in order for them to be interpretable, because unchecked features are not interpretable. This means that any syntactic representation which does have uninterpretable features violates the Principle of Full Interpretation; this principle states that each symbol of the syntactic representation of a sentence must be mapped onto the interpretation.

Moreover, feature licensing is accomplished by a matching of the abstract features on a functional head (e.g. T) and a feature in another constituent which acts as the checker or licenser. The checking theory distinguishes two kinds of features: specifier features and head features. In Chomsky (1995), it is proposed that the head T or Agr contains a strong nominal specifier that has to be checked by a constituent with a matching feature, which is here the subject NP/DP. The head features must be checked by a matching head. That is, the head features of T or Agr are licensed by a verb, which has a matching verbal agreement inflection. This suggests that head-feature licensing is achieved when a lexical head is adjoined to the relevant functional head.

Functional heads like T and Agr contain abstract grammatical features (such as, person, number, gender, tense) which may be strong or weak and which have to be licensed by a matching lexical element (which can be a head or a phrase). All movement is aimed at the licensing of abstract head features or specifier features of functional heads. The checking theory states that a head feature has to be licensed by head-movement; a specifier feature must be licensed by a maximal projection in a Spec-head agreement relation. This means that strong features must be licensed by overt movement (i.e. at the level of the Phonetic Form (PF)/S-structure) while weak features have to be checked by covert movement (at the level of the Logical Form (LF)). When a feature has been licensed/checked, it is erased if it is uninterpretable (if it is a purely formal feature with no semantic content). Any uninterpretable features left unchecked (which have not been erased) at LF will cause the derivation to crash (i.e. the derived structure will be ungrammatical).

The preceding section has shown that finite verbs in Early Modern English carry strong agreement features. The question is: Can these verbs move from the head V position of VP into the head I(NFL) position (or the head T position)? The answer to this question can be provided by the checking theory. Let us now consider sentence (1a) above, which is reproduced as (4) below for convenience. The objective is to examine the verb movement and show how strong features are checked in Early Modern English syntax.

4a. Thou sayst true.



Given the assumptions of the checking theory, strong morphological features force syntactic movement; strong features must be checked in the derivation, since any features left unchecked will cause the derivation to crash. It can be observed that the verb *sayst* in (4), which originates in the head V position of VP, carries strong agreement features. It is the strength of these features that motivates the verb to move overtly to I(NFL) for feature licensing. The [2sg.Nom] features of the subject *Thou* 'You' mark the second person singular nominative head- features of *Thou*; this illustrates that both the features of *Thou* match. Besides, the [Pres.] feature of the verb *sayst* marks its present-tense head feature and the [2sg.Nom] features of *sayst* are specifier-features which require a second person singular nominative subject as its specifier in order for the derivation to show convergence.

Furthermore, the subject NP *Thou* in (4), which originates in the specifer position of VP, has to move overtly to the specifier position of IP. What motivates *Thou* to move higher up is the fact that it has got strong features which have to be checked via a Spec-head agreement configuration. Since there is a subject-verb agreement, due to feature matching, this involves a local checking relation between I(NFL), which has head-features, and its specifier, which has specifier features. The first motivation of the verb movement from V to I(NFL) in (4b) is to enable the specifier features of *sayst* to be licensed against the corresponding head-features of *Thou*. As a consequence of this movement, the two sets of features match and that the specifier features of *sayst* and the nominative Case-feature of *Thou* are erased, for such features are uninterpretable, thus ensuring that the derivation shows convergence. The other motivation of the verb movement from V to I(NFL) in (4b) is to show that INFL carries a tense feature (i. e. the present-tense head-features of *sayst*) which has to be licensed in the course of derivation, ensuring that INFL features are interpretable at the logical form, given the assumption that INFL must carry a tense-feature in order to be interpretable at LF.

The syntactic representation of the clause structure in (4b) has revealed that the morpho-syntactic agreement properties are checked by raising the verb to INFL and the subject to [Spec, IP]. This syntactic movement operation allows the verb to be in a local Spec-head relation with its subject; hence its person/number/Case specifier-features can be licensed in the syntax. The preceding line of analysis is in agreement

with Radford (1997) that this kind of V-movement operation of a finite non-auxiliary verb from the head V position of VP into the head I(NFL) position of IP was productive in the Early Modern English period at the time Shakespeare was writing his plays, around 1600. But this V-movement operation is no longer productive in present-day English.

4. The Null *pro* Subject in Modern Standard English (MSE)

4.1. Overview

English has undergone major historical developments and linguistic changes in its syntax, morphology, semantics, lexicon, phonology …etc. while passing from the old period to the middle period and then finally to the modern period (Bynon, (1977:75-176), Lehman (1992:219-254) and Trask (1996:17-159)). During these historical periods, Jesperson (1938:168-198) points out that, English has lost its relatively rich system of agreement inflection. Jesperson stresses that Modern Standard English can be characterized by (i) the complete disappearance of inflectional details, (ii) the number of distinct vowels has been reduced and (iii) the constant change found in many verbs has been abolished altogether except in the single case of *was, were*.

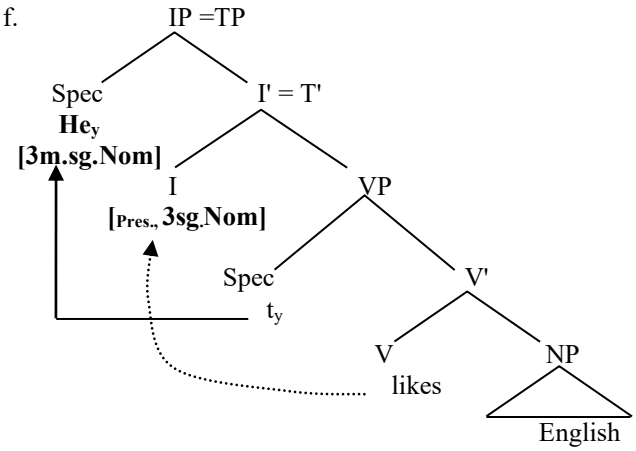
It can be observed now that the differences between the older stages of English and Modern Standard English can be realized in the sense that in the earlier stage of the language, Case morphology was more prominent. Case was visible on nouns and determiners, as well as on pronouns. In present-day English, Case is visibly on pronouns (Haegeman and Gueron, 1999 and Berk, 1999).

4.2. Movement and Feature Checking in Modern Standard English

In this section we discuss how movement and feature licensing work in Modern Standard English and to what extent it differs from those of Early Modern English with regard to the *pro*-subject property. Let us consider (5) and (5') to illustrate the point.

5a. He/She likes English.	5'a. He/she liked English.
b. I like English.	b. I liked English.
c. We like English.	c. We liked English.
d. They/You like English.	d. They/You liked English.

f.



It can be noted that the example sentence in (5a), for instance, is an IP which is headed by the functional head I(NFL). The verb *likes* occupies the head V position of VP and the subject NP *He* occupies the specifier position of VP. The subject NP in Modern Standard English has to move overly to [Spec, IP] for feature licensing. What motivates the subject to move is the need to check its morphological features in a Spec-head relation. However, the verb in Modern Standard English cannot move overtly from the head V position into the head I(NFL) position of IP, because of its poor system of verbal agreement inflection. The verb can move covertly to INFL to check its features; this movement operation has to take place only at LF.

Given this account, the question arises: why do finite (non-auxiliary) verbs not move to INFL in Modern Standard English, while they do in Early Modern English? A possible explanation to this question can be provided if we adopt Chomsky's (1995) minimalist analysis as our framework. Given feature licensing of the checking theory, it can be argued that finite verbs in Modern Standard English carry weak agreement features (i.e. weak person/number specifier features), while their counterparts in Early Modern English carried strong agreement features. It can then be assumed that verbs which have strong agreement features move overtly to INFL whereas verbs carrying weak agreement features cannot do so; the latter can only move at LF. Given this line of analysis, the question is: what decides whether finite verbs carry strong/weak agreement features? This question can be accounted for in terms of the correlation of the richness of the agreement inflections marked on finite verbs. That is, finite verbs have weak agreement features in languages which have poor (abstract) AGR paradigm (as in Modern Standard English) and strong agreement features in languages which have rich AGR paradigm (as in Early Modern English).

Interestingly enough, it can be observed in (5) that whereas third person singular *+s* is the only regular agreement inflection found on present-tense verbs in present-day English, it can be realized that in Shakespearean English (at around 1600) three present tense inflections are found, i.e. second person singular *+st,* third person singular *+th* and *+s*. On the basis of this line of argument, it can be argued

that finite verbs in present-day English have weak agreement features by virtue of their poor system of inflectional morphology.

4.3. *pro* in Modern Standard English

The preceding analysis has shown that the difference in the strength/weakness of the agreement features carried by finite verbs in Early Modern English and Modern Standard English has resulted in a morpho-syntactic difference; Early Modern English was a null subject language whereas Modern Standard English is not. This can be illustrated below, where (5) is reproduced as (6) for convenience.

6a. *[$_{IP}$ *pro* I[$_{VP}$ likes English.]]
 b. *[$_{IP}$ *pro* I[$_{VP}$ like English.]]
 c. *[$_{IP}$ *pro* I[$_{IP}$ like English.]]

All the sentences in (6) are ungrammatical in Modern Standard English because each sentence requires obligatorily the presence of an overt subject. This means that the subject must not be missing in (6). Let us illustrate this further in Chomsky's (1995: 3) own example in (7).

7 * e arrived yesterday. ('he arrived yesterday')

Chomsky (1995) points out that the empty category in (7) is a pronominal element, which he calls *pro*. Chomsky (1995:3) states that in (7) "the empty category *pro* is not permitted in this position in English; the counterpart would be grammatical in Italian, a null subject language."

It can be obvious that finite verbs cannot have a null *pro* subject in a language like Modern Standard English where they carry weak agreement inflections. The question posed in this account is: why should this happen in Modern Standard English? The answer can be attributed to the fact that the poor system of agreement inflection in Modern Standard English does not allow us to identify the null subject. That is, the feature content of the subject cannot be recovered from the morpheme on the verb morphology. In this connection, Radford (1997:120) states that since Modern Standard English has a weak system of agreement, its agreement morphology is too impoverished to allow identification of a null *pro* subject. (8) illustrates the point.

8a. *[$_{IP}$ *pro* I[$_{VP}$ can go.]]
 b. *[$_{IP}$ *pro* I[$_{IP}$ may come.]]

If we ask questions like (8a and b), we will not be able to tell from the agreementless form *can/may* whether the subject NP is *she, they, we, he, I, it, you,* or whatever. In other words, the agreementless form *can/may* does not serve to identify the null subject, because it is unable to recover its feature content. Hence, the poor AGR morpheme on the verb is too weak to pick up the subject identity. The reason why this happens in Modern Standard English supports the fact that Modern Standard English has lost its verbal inflections. As a consequence of this, present-day English

has lost certain morpho-syntactic properties such as, the null *pro* subject, overt V-movement, overt Case-marking, among other things.

5. The null *pro* subject in Standard Arabic

5.1. Previous accounts

5.1.1. Traditional Arab Grammarians

The traditional Arab grammarians developed in their syntactic analysis a notion which seems to be identical to the null *pro* which they referred to as *al-dhamir al-mustatir* 'the hidden or concealed pronominal' in their own grammar.

Let us have a closer look at their syntactic treatment of what they call 'the hidden subject' in the following examples in (9) and (10).

9a. katab – at **hind – un** risaalat – an
wrote-(AGR) f.sg. **Hind-nom.** letter-acc. indef.
'Hind wrote a letter'

b. katab – at risaalat – an
wrote-(AGR) f.sg. letter-acc. indef.

10a. **hind – un** katab – at risaalat – an
Hind-nom. wrote-(AGR) f.sg. letter-acc. indef.
'Hind wrote a letter'

b. katab – at risaalat – an
wrote-(AGR) f.sg. letter-acc. indef.

The traditional Arab grammarians differentiated between the verbal and nominal sentence in their syntactic treatment. For them (9) is a verbal sentence (because it begins with a verb), while (10) is a nominal sentence (because it begins with an NP). The traditional Arab grammarians viewed the subject in (9b) and (10b) as 'hidden' or 'concealed' (to use their term). They identified the morpho-syntactic identity of ‘the hidden’ subject through the gender agreement manifested on the verb inflection. Furthermore, they argued that (10a) has two subjects; they viewed the first subject 'Hind' (which occurs sentence-initially and precedes the verb) as the topic while they treated the second (which immediately follows the verb) as the 'hidden' or ‘concealed’ subject (the latter has been analyzed as the null *pro* in the syntactic analysis of generative grammar). It should also be pointed out that the traditional Arab grammarians stressed that there is only one subject position (and not two) in (10b).

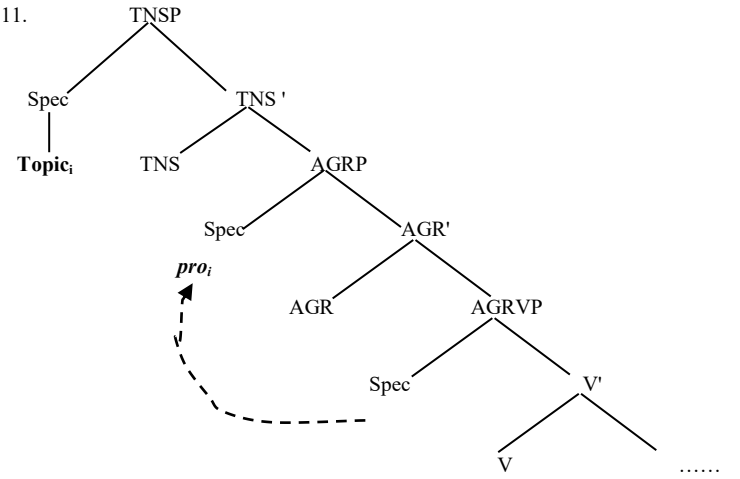
However, their structurally approach to the syntactic analysis of the empty category *pro* could not provide an adequate account of the subject for it could not address and point out the morpho-syntactic as well as the semantic properties of *pro* in the same way the transformational-generative approach has done. Hence, our analysis on the subject will be based on the minimalist framework of Chomsky (1995).

5.1.2. Ouhalla's (1991) account

Ouhallah (1991) assumes that preverbal subjects in Standard Arabic are topics base-generated in the specifier position of TNSP (= IP) and are coindexed with a

resumptive *pro*, which occupies the specifier position of AGRP, and acts as the subject of the sentence at the surface structure. In this position, Ouhalla points out that the null *pro* is identified and assigned Case. This can be illustrated in (11), the tree-representation is cited from Ouhalla (1991).

11.



Ouhalla (1991) stresses that the analysis above outlined for constructions with preverbal subjects/topics amounts to the claim that the agreement relation they display is of the same kind as the agreement relation found in the following postverbal sentences with a null *pro* subject, as shown in (12).

12a. ?ishtar – uu daar – an
bought-3m.pl. house- acc.
'They bought a house.'

b. qara? – uu kitaab – an
read-3m.pl. book-acc.
'They read a book.'

Ouhalla emphasizes that these constructions in (12) are like their counterparts with preverbal subjects/topics in that they contain a *pro* argument. However, we shall present a different argument from Ouhalla's (1991) and that our analysis will be based on the minimalist framework of Chomsky (1995).

5.1.3. Fassi-Fehri's (1993) treatment

Fassi-Fehri (1993) discusses pronominal bound forms on verbs in Standard Arabic which can be analyzed as inflectional agreement markers under AGR or I. Fassi-Fehri stresses that these bound forms serve to identify empty (*pro*) arguments. Let us see how Fass Fehri treats the occurrence of *pro* in his analysis of bound forms on verbs. This can be illustrated in (13).

13a. waSal - uu
arrived-3.pl.m.
'They (m.) arrived.'

b. waSal – na
arrived- 3.pl.f.
'They (f.) arrived.'

Fassi-Fehri states that if the bound form marked on the verb in (13) were treated as an AGR marker, agreeing with a null *pro*, (as shown in Chomsky, 1982 and Rizzi, 1982, 1986), then it can be predicted that, on the basis that the subject argument is overtly present, the same AGR marker must be found. The expected result is not correct, as illustrated by the ungrammatical sentences in (14).

14a. *waSal – uu al -?awlaad - u
arrived-3.pl.m. the- boys-nom.
Literally: They arrived the boys.

b. *waSal– na al- banaat - u
arrived-3.pl.f. the- girls- nom.
Literally: They arrived the girls.

Given this, Fassi-Fehri observes that only a poor AGR marker is compatible when a syntactic subject is phonetically present. This can be shown by (15).

15a. waSal – a al -?awlaad - u
arrived-3.m. the- boys-nom.

b. waSal – at al- banaat - u
arrived-3.f. the- girls- nom.

Although Fassi-Fehri's analysis provides a good account of pronominal bound forms on the verb morphology in Standard Arabic that can be used as either as a pronoun or an inflection, it does not offer a satisfactory treatment of the null *pro* subject and how it is identified and licensed in the syntax.

5.1.4. Mohammed's (1990) analysis

In his analysis of the problem of subject-verb agreement in Standard Arabic, Mohammed (1990: 95-125) discusses briefly the null *pro* subject and views it as an expletive pronominal in Arabic. Mohammed also presents some contexts in which an expletive pronoun can be found in Arabic. He assumes that Arabic is underlyingly an SVO language. He examines agreement within an extended SVO analysis and points out that the verb agrees with its subject only if the subject precedes the verb and that the subject and the expletive pronoun can co-occur. He argues that in VS sentences the agreement features marked on the verb morphology are the result of the presence of the expletive subject. He suggests "a configuration that can create two subject positions: one position for the real subject and another for

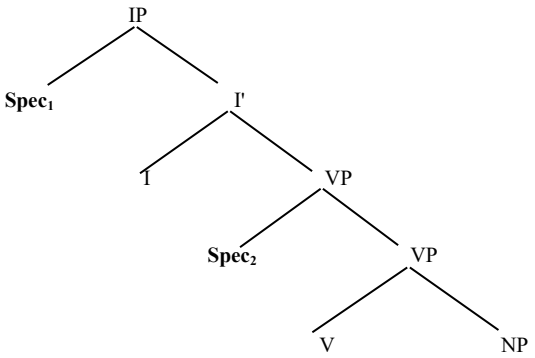
the expletive subject", (p. 115). He proposes that "VS sentences in Arabic have the structure in (16) (irrelevant detailed omitted):

16. $[_{S}$ [NP *pro*] [V NP]

where NP is the subject", (p.115).

Having seen Mohammed's (1990) proposal of agreement within an extended SVO analysis, let us look at how Mohammed's double subject proposal works in the configuration in (17), which he takes to be the structure underlying a simple sentence in Standard Arabic.

17.



Mohammed states that (17) gives us two subject positions: $Spec_1$ of IP is for the first subject and $Spec_2$ of VP for the second subject. Mohammed argues that syntactic raising/movement must be barred. He illustrates that "This is because Spec of IP seems to have properties identical to those that were attributed to the subject position of raising verbs; both positions are A-positions and θ- positions. For the sake of consistency, we will assume that there is no Spec-of-VP to Spec-of-IP movement" (p. 118). He concludes that the appearance of *pro* in Spec of IP is optional. "If it appears, it has to be in the domain of INFL. If it does not appear, then I(NFL) moves and adjoins to V in order to have its agreement features dictated by a c-commanding subject", (p. 118).

Although Mohammed's (1990) analysis provides some useful insight into the analysis of subject-verb agreement in Standard Arabic, it does not offer a satisfactory account of the null *pro* subject. Let us summarize his argument in the following two points: (i) Mohammed assumes a configuration which can create two subject positions in one finite root clause in Standard Arabic: one position for the real subject occupying [Spec, IP] and another position for the expletive subject at [Spec, VP], and (ii) Mohammed assumes that there is no syntactic raising/movement of the subject from [Spec, VP] to [Spec, IP] and that such raising/movement is barred.

Given this, we will adopt a different position from Mohammed's (1991). We shall provide an alternative analysis based on the minimalist framework. We shall show that these two arguments of Mohammed are not satisfactorily adequate and that the shortcomings in these two arguments can best be overcome by the checking

theory of Chomsky (1995). We shall argue that in a VSO/SVO finite clause in Standard Arabic only one subject position is essentially required and that the syntactic movement of the subject from [Spec, VP] to [Spec, IP] (or potentially Spec of TP) is an essential operation to license the strong morphological features of the subject. In other words, we shall show how the morphological features of the subject and verb are checked while raising/moving them higher up to their relevant positions in the clause structure of Standard Arabic. We shall also argue that the null *pro* subject moves from the specifier position of VP to [Spec, IP] for feature checking considerations, in order for the derivation to show convergence. More detailed analysis on this issue will be provided later on in the section of Standard Arabic.

5.2. *pro* in Standard Arabic

5.2.1. The Dropping of Subject Pronouns in Finite Clauses

In this section we attempt to show the occurrence of the null *pro* subject in finite sentences and examine whether or not Standard Arabic allows the pronominal subject to 'drop'. This can be demonstrated in (18)and (19).

18a. **huwa** ya – ktubu kitaab – an
he 3m.(AGR) write-pres. book-acc-indef.
'He writes a book.'

b. [$_{IP}$ **huwa** I[$_{VP}$ ya-ktubu kitaab-an]]

19a. ***pro*** ya – ktubu kitaab – an
3m.(AGR) write-pres. book-acc-indef

b. [$_{IP}$ ***pro*** I[$_{VP}$ ya-ktubu kitaab-an]]

The missing subject in the pro-drop example in (19) clearly has the interpretation of a pure pronominal, on a par with its overt counterpart with an overt pronominal subject in (18). In (19) the null subject *pro* has an antecedent in the discourse much like overt pronouns in the same context.

From sentences in (18a-b) and (19a-b) it can be noted that pronominal subjects are not compulsory (i.e. optional) in finite clauses in Standard Arabic. That is, such pronominal subjects can either be present, as in (18), or absent, as in (19). Unlike Modern Standard English, Standard Arabic permits the subject of a finite clause to remain non-overt. In the syntactic representation in (19a-b), the subject of *ya-ktubu* 'writes' is the null *pro*, which is a non-overt variant of the overt pronoun *huwa* 'he' in (18), which could not also occupy the subject position (19b). The non-overt pronominal subject of a finite clause in Standard Arabic is represented as a non-overt pronoun, *pro*. This shows that since Standard Arabic allows subject pronouns to 'drop', it is a pro-drop language. Moreover, it can be noted that the null *pro* subject in (19) realizes the external argument of *ya-ktubu* 'writes', since it is associated with the AGENT thematic role.

In this connection, the question that arises in this context is: why does Standard Arabic allow subject pronouns to 'drop' in finite clauses while Modern Standard English does not? The answer to this question can be attributed to the fact that Standard Arabic has a rich inflectional system of agreement morphology. That is, Standard Arabic permits pronominal subjects to 'drop' because their morpho-syntactic content can be recovered from the subject AGR morpheme marked on the verb morphology. In the next section we discuss how the content features of the subject *pro* and the rich agreement inflections on the verb can be identified in Standard Arabic.

5.2.2. The Identification of the *pro* and Rich AGR(ement) Inflection

Let us examine the rich agreement inflections manifested in the Standard Arabic AGR paradigm below in order to show how the *pro* can be recovered from the verb morphology. This can be demonstrated in (20), (21) and (22).

Singular

20a.	(1s.m/f.)	(?anaa)	?a – ktubu	'I write'
b.	(2s.m)	(?anta)	ta – ktubu	'You write'
c.	(2s.f.)	(?anti)	ta – ktubi	'You write'
d.	(3m.s.)	(huwa)	ya – ktubu	'He writes'
e.	(3s.f.)	(hiya)	ta – ktubu	'She writes'

Dual

21.	(dual f/m)	?antumaa	ta – ktubaani	'You (both) write'

Plural

22a.	(1pl.m/f.)	(nahnu)	na – ktubu	'We write'
b.	(2pl.m.)	(?antum)	ta – ktubuuna	'You write'
c.	(2pl.f.)	(?antunna)	ta – ktubna	'You write'
d.	(3pl.m.)	(hum)	ya – ktubuuna	'They write'
e.	(3pl.f.)	(hunna)	ya – ktubna	'They write'

As shown in (20), (21) and (22), the inflectional paradigm in Standard Arabic is largely rich; there are eleven distinct forms where every number/person/gender combination has a different affixal form. The inflectional agreement paradigm in Standard Arabic distinguishes eleven persons uniquely whereas the present tense paradigm in present-day English distinguishes only two forms, since they are the only two left, the inflectional form *'–s'* (used for the third person singular present tense) and the bare system of the verb (used for all other persons).

A closer look at (20), (21) and (22) reveals that the agreement features overtly encoded in the AGR category make the presence of subject pronouns with identical agreement features redundant. From (20), (21) and (22), it can be realized that the AGR paradigm in Standard Arabic is rich enough to be identified; the feature-content of a dropped subject pronoun can easily be recovered from it, whereas the AGR in English is largely poor in the sense that the feature content of a dropped subject pronoun cannot be recovered form it. This further explains why

Standard Arabic is a pro-drop language whereas English is not. It can be pointed out that the pro-drop phenomenon is permitted only in languages where the feature-content of the dropped pronoun can be recovered from AGR.

Moreover, what decides the availability of the null *pro* subject is the inflectional paradigm of the language, given that the rich agreement inflection marked on the verb is realized as the basis of the setting of the phenomenon of the pro-drop parameter.

Furthermore, the missing subject of the pro-drop sentences in Standard Arabic illustrated above has the interpretation of a pure pronominal, especially when compared with its overt counterpart in the examples with an overt subject pronoun. In this connection, Rizzi (1982, 1986) views a pure pronominal null category as the one which functions as the subject in pro-drop sentences. Since the null *pro* subject is a symbol in the language structure, it has to be interpreted in order to be interpretable. The *pro* element is subject to the Empty Category Principle, as an identification requirement. It can be argued that what identifies the null *pro* subject is the rich verbal agreement inflections on finite verbs, which render the empty *pro* interpretable. Hence, the rich AGR-morphology identifies the null *pro* subject in Standard Arabic. In addition to being licensed, argumental *pro* must be identified through binding by grammatical features on the licensing head. In order to be coreferential, an NP hast to be specified for person/number on its Case-governing head. Hence, the presence of rich agreement morphology is a necessary condition for this mode of identification.

Furthermore, it can be pointed out that overt realization of the pronominal subject in Standard Arabic has some semantic content, since it signals focus on the subject. This can be illustrated in (23a).

23a. [$_{IP}$ **hiya** I[$_{VP}$ ta – ktubu risaalat – an]]
she 3f.sg.(AGR) write-pres. letter-acc.- indef.
'She writes a letter.'

b. [$_{IP}$ ***pro*** I[$_{VP}$ ta – ktubu risaalat – an]]
3f.sg.(AGR) write-pres. letter-acc.- indef.

But if focus on the subject is not needed, then the subject pronoun remains non-overt (i.e. null), as in (23b). The reason why this happens can be explained in terms of the economy principle.[3] Given this principle, the overt presence of the subject pronoun is less economical than leaving it null (i.e. phonetically empty). This means that the overt expression of the subject pronoun demands some phonetic material (or sound) whereas this is not required when it is non-overt or null.

5.2.3. Conditions on the Licensing of *pro*

After exploring the identification nature of the null category *pro* in null subject structures, we now need determine the occurrence of *pro* and how it is licensed. This

[3] Economy Principle is a principle which requires that (all other things being equal) syntactic representation should contain as few constituents and syntactic derivations and involves as few grammatical operations as possible (Radford, 1997:259).

will help explain the difference between Standard Arabic and Modern Standard English. This can be illustrated in (24) and (25).

24a. *pro* ta – ktubu qiSSat – an
3f.sg.(AGR) write-pres. story-acc.-indef

b. [$_{IP}$ *pro* I[$_{VP}$ ta – ktubu qiSSat – an]]

25a. *has written a story.
b. *[$_{IP}$ *pro* I[$_{VP}$ has written a story]]

Unlike Standard Arabic, which allows the null *pro* to occur in the subject position in (24), the argument *pro* cannot show up in the subject position of finite clauses in Modern Standard English in (25). The difference between both languages supports our argument that what allows the presence of the *pro* in finite clauses in Standard Arabic relies heavily on the presence of the overtly rich AGR inflection responsible for the identification of the feature-content of the null *pro* subject. Hence, the null *pro* is licensed by an overt (rich) AGR morpheme which is coindexed with it. This line of argumentation is in agreement with Ouhalla's (1999:313) licensing condition on the appearance of *pro*, stated in (26), where he examines the morpho-syntactic occurrence of *pro* in Italian and English.

26. Condition on the licensing of *pro*
pro is licensed by an overt (rich) Agr category coindexed with it.

Given the preceding analysis supported by Ouhalla's licensing condition on *pro*, it can be concluded that the rich verbal (AGR)eement inflection licenses the null subject *pro* in Standard Arabic. It can also explain the reason why English does not permit the null *pro* element in finite clauses; the poor system of agreement morphology cannot license the empty category *pro* in Modern Standard English.

5.3. Alternative Analysis

In this section, we provide the alternative analysis based on the minimalist framework of Chomsky (1995). The position we adopt in this study differs from the arguments posited in Mohammed (1990), Ouhalla (1991) and Fassi-Fehri (1993); the first two argue in favor of assuming a configuration which can create two subject positions in a single finite clause of Standard Arabic: the first position is for the real subject occupying [Spec, IP], while the second is for the expletive *pro* occupying [Spec, VP]. We argue that in a single finite clause of Standard Arabic one subject position is essentially needed in the VSO and SVO sentences to account for the syntactic occurrence of the null *pro* subject. We also offer an argument where the null *pro* element can have the same morpho-syntactic agreement properties and treatment both in the VSO and SVO structures in Standard Arabic. The argument that we posit here has found support from the Checking Theory of Chomsky (1995) in the sense that the feature licensing and movement of the subject *pro* and the verb are neatly accounted for; the checking theory has made easier the task of accounting

for the agreement properties of the *pro* element in finite clauses of Standard Arabic. Let us consider the following examples in (27), (28), (29), and (30) to illustrate the point.

VSO

27a. jaa? – a al-walad – u
came-3m.sg. the-boy-nom.
'The boy came'

b. jaa? – a al-walad – aani
came-3m.sg. the-boys-dual-m.nom.
'The (two) boys came'

c. jaa? – a al-?awlaad – u
came-3m.sg. the-boys-m.pl.nom.
'The boys came'

28a. jaa? – at al-bint – u
came-3f.sg. the-girl-nom.
'The girl came'

b. jaa? – at al-bint – aani
came-3f.sg. the-girls-dual-f.nom.
'The (two) girls came'

c. jaa? – at al-banaat – u
came-3f.sg. the-girls-pl.f.nom.
'The girls came'

SVO

29a. al-walad – u jaa? – a
the-boy-nom. came-3m.sg.
'The boy came'

b. al-walad-aani jaa?-aa
the-boys-dual-m.nom. came-dual.m.
'The (two) boys came'

c. al-?awlaad – u jaa? – uu
the-boys-m.pl.nom. came-m.pl.
'The boys came'

30a. al-bint – u jaa? – at
the-girl-nom. came-3f.sg.
'The girl came'

b. al-bint – aani jaa? – at – aa
the-girls-dual.f.nom. came-dual.f.
'The (two) girls came'

c. al-banaat – u ji? – na
the-girls-f.pl.nom. came-f.pl.
'The girls came'

A closer look at the VSO and SVO examples in (27) and (28) reveals that the verb inflection agrees only with the subject in gender, and not in person and number. The verb in (27) and (28) remains in the singular form in spite of the fact that the number of the subject in each sentence changes from singular to dual to plural, respectively. It can be pointed out that the VSO word order in Standard Arabic allows only partial agreement between the AGR-morpheme on the verb and the subject of the sentence. This partial agreement is in gender features, as shown in (27) and (28).

However, the SVO sentences in (29) and (30) illustrate that the verb and the subject of the sentence agree fully in the phi-features (i.e. gender, person and number features). This shows that the SVO word order displays complete agreement between the AGR-morpheme on the verb and the subject in gender, person and number features.

Let us now examine the pro-drop of the subject in the VSO and SVO sentences in Standard Arabic and show the morpho-syntactic properties of the *pro*. The sentences in (27), (28), (29) and (30) will be produced in (31), (32) , (33) and (34) but with null *pro* subjects.

VSO

31a. jaa? – a
came-(AGR)3m.sg.

b. jaa? – aa
came-(AGR)dual.m.

c. jaa? – uu
came-(AGR)3m.pl.

31'b. *jaa? – a
came-(AGR)3m.sg.

c. *jaa? – a
came-(AGR)3m.sg.

32a. jaa? – at
came--(AGR)3f.sg.

b. jaa? – at – aa
came-(AGR)dual.f.

c. ji? – na
came--(AGR)3f.pl.

32'b. *jaa? – at
came--(AGR)3f.sg.

c. *jaa? – at
came--(AGR)3f.sg.

SVO

33a. jaa? – a
came-(AGR)3m.sg.

b. jaa? – aa
came-(AGR)dual.m.

c. jaa? – uu
came-(AGR)3m.pl.

34a. jaa? – at
came--(AGR)3f.sg.

b. jaa? – at – aa
came-(AGR)dual.f.

c. ji? – na
came--(AGR)3f.pl.

It can be observed in the sentences with overt lexical subjects in (27), (28), (29) and (30) that the verb *jaa?* 'came' assigns its external theta role to the subject NP/DP in each sentence. By analogy, we assume that the same is true of the occurrence of *jaa?* 'came' in the sentences with null *pro* subjects in (31), (32), (33) and (34). On the basis of the Extended Projection Principle (EPP),[4] we postulate that there is a subject position, [Spec, IP], in all the examples in (27-30) and (31-34) above. The projected subject positions of the verb *jaa?* 'came' in (31), (32), (33) and (34) are NP-positions which are not phonetically realized and in which the external theta roles of the verbs are realized. We postulate that the specifier position of IP is occupied by an empty/zero element. The question is: what are the properties of this empty/zero NP?

The empty/zero element in (31), (32), (33) and (34) has definite reference: its interpretation is like that of an overt pronoun. Like a pronoun it may refer to an entity in the non-linguistic context (31-34), or it may be coindexed with an element in the linguistic context. In other words, the non-overt subject in (31-34) is the missing non-overt NP: it is a non-overt pronoun. The null element has the feature

[4] EPP is a principle of Universal Grammar (UG) which states that not only lexical properties of words be projected in the syntax, but in addition, regardless of their argument structure, sentences must have subjects.

combination [-Anaphor, +Pronominal]. This non-overt NP is represented by *pro*, 'small *pro*'.

Surprisingly enough, the data in (31), (32), (33) and (34) provide an interesting observation. It was expected that when the overt lexical subjects of the sentences are dropped the agreement inflections on the verbs in the VSO sentences in (31) and (32) would remain unchanged, but this does not happen. If they remain unchanged, then ungrammatical derivations will be produced, as shown in (31') and (32'). The reason why (31') and (32') are ungrammatical can be attributed to the fact that they are an example of a feature mismatch demonstrated in a Spec-head agreement relation, where the agreement features of the dual masculine subject (encoded in the *pro* subject) cannot match the third person singular features marked on the verb inflection. The same is true of (32'); the plural masculine subject (which is the *pro* subject) cannot match the singular features on the AGR-morpheme marked on the verb. Hence, the ungrammaticality of (31') and (32') can be attributed to a violation of the identification requirement on the licensing of the *pro* thematic subject. The AGR-features instantiated on the verbs in (31') and (32') are singular and therefore cannot license a *pro* argument with dual or plural features. It can be noticed that the *pro* in (31') and (32') has features, reflected by the overt subjects, which are different from those of the AGR-features.

If we compare between the VSO sentences with lexical lexical subjects in (27-30) and those with null subjects in (31-34), then we can find that when the lexical subject is overtly present, the AGR-morpheme on the verb shows partial agreement between the verb and the subject (as in (27-30)), and when the subject is phonetically null (as in (31-34)), the AGR-morpheme on the verb illustrates complete agreement between the verb and the subject, the latter is here the null *pro* subject. This illustrates that in the VSO sentences the verb morphology behaves differently depending on whether the subject is phonetically absent or present. When the overt lexical subject is dropped in the VSO sentences, the verb agreement inflection appears morphologically identical to that of the SVO sentences. For example, the VSO verb inflection in (31) is the same as the SVO verb inflection in (33); the same is true of (32) and (34). When the subject is phonetically null, the AGR-morpheme on the verb in the VSO sentences takes the same morphological shape as the AGR-morpheme marked on the verb in the SVO sentences. Hence, the AGR-morpheme on the verb, in each VSO and SVO sentence, agrees fully with the *pro* argument occupying the subject position of [Spec, IP] in gender, person and number features. This further stresses that there is complete agreement between the null subject *pro* and the AGR-morpheme on the verb in these VSO and SVO structures.

The reason why this happens in the VSO and SVO sentences can be attributed to the fact that Standard Arabic resorts to this technique in order to satisfy the identification requirement, ensuring that the recoverability of the subject identity is satisfied. What allows Standard Arabic to do this is due to the richness of its verb morphology.

In the next section, we discuss the feature licensing of the *pro*, how it originates in [Spec, VP] and why it subsequently moves to the thematic and structural subject position of the sentence, occupying [Spec, IP].

5.4. *pro* and Feature Licensing

Given that the tense head has both verbal and nominal features, Chomsky (1995:350,364), (and in subsequent works (1998, 1999, 2000)) proposes that tense in English is specified for two categorical features: the D-feature and V-feature. The V-feature illustrates the interaction between the tense and the verb while the D-feature decides the interaction with the subject. Given feature checking, the V-feature must be licensed by a verbal head, while the D-feature can be checked by a nominal head, namely the subject.

Chomsky (1995) suggests that the D-feature of I(NFL) is strong in English. The strength of the D-feature forces the subject to move overtly from [Spec, VP] to the specifier position of IP for feature checking purposes. The V-feature of I(NFL) is, however, weak in English and does not motivate main verbs to move overtly to the head I(NFL) position in overt syntax; the verb can only move at LF to check its features.

Chomsky (1995:199) points out in his minimalist analysis that "Arabic allows weak and strong inflection, hence weak and strong NP-features;[5] Arabic is a suggestive case, with SVO versus VSO correlating to the richness of its visible verb inflection." Given the VSO and SVO sentences in (31-34) with null *pro* subjects, where the argumental *pro* and the AGR-morpheme display the same morphological features, we assume that the D-feature of I(NFL) is strong in Standard Arabic and that the *pro* is necessary in these structures to check this D-feature. However, if we assume that the D-feature of I(NFL) is weak in these VSO and SVO sentences, we would expect the subject to remain inside [Spec, VP] at LF. But this does not happen. The reason why this does not happen can be attributed to the strength of the D-feature that motivates the movement of the *pro* subject for feature licensing on the assumption that morphological features have to be checked in order for the derivation to show convergence.[6]

Let us illustrate this below by choosing two examples from the VSO and SVO sentences with null subjects illustrated in (31-34) above and reproducing them as (35) and (36) for convenience.

35a. jaa? – aa
came-dual.m
'They (both) came'

b. $[_{IP}$ *pro* I$[_{VP}$ jaa? – aa]]

[5] The term 'NP-features' is also referred to as 'D-feature' in Chomsky (1995, 1998, 1999, 2000), given that the NP has been broadly analyzed as a DP in the recent analysis of the minimalist framework.

[6] Platzack (1994) assumes that the D-feature of I(NFL) is weak in a pro-drop language like Italian. Due to the weakness of the D-feature of I, Platzack takes *pro* to be in the VP-internal position before Spell-Out. However, as quoted in Manzini, R. M. and Savoia, L. M. (1997), Cardinalewtti (1994) and Donati and Tomaselli (1997) provide an argument against this analysis that *pro* cannot be in the position of the postverbal subject in the overt syntax.

36a. jaa? – uu
came-m.pl.
'They came'

b. [$_{IP}$ *pro* I[$_{VP}$ jaa? – uu]]

(35) and (36) are null *pro* subject sentences (sentences whose subjects are dropped or missing). In (35) and (36) the subject position is occupied by a *pro* argument which is the thematic and structural subject of the sentence. The question is how to account for the null *pro* subject and how its nominative Case and agreement features are licensed as well as why it moves from the VP-internal position to [Spec, IP] for feature checking in the course of derivation.

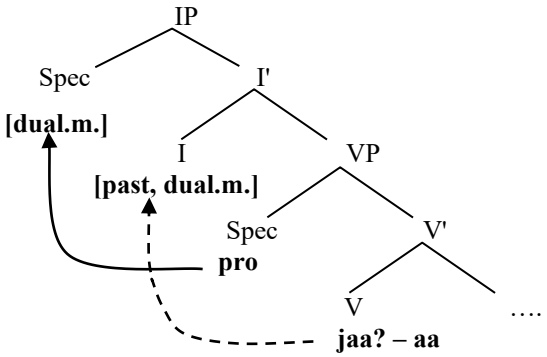
It can be observed that the minimalist EPP is perfectly consistent with the derivations in (35) and (36) which takes the D-feature of I(NFL) to be strong. *pro* is essential in (35) and (36) to check the D-feature. Since the D-feature of I(NFL) is strong in (35) and (36), *pro* is expected to originate in the VP-internal position and then moves for feature licensing. If we assume that subjects arise inside VPs, then they have to move overtly or covertly to the specifier position of IP for feature licensing requirements. Given this, we argue that in the VSO and SVO structures with null *pro* arguments in Standard Arabic, the subject *pro* originates in [Spec, VP], and then it moves to the thematic and structural subject position occupying [Spec, IP]. The movement of the *pro* is motivated morphologically by the fact that the D-feature of I(NFL) is strong; the strength of inflection forces the null subject *pro* to move for licensing its nominative Case and agreement features via a Spec-head agreement relationship.

Furthermore, strong inflection can be manifested in overt agreement morphology on the verbs in (35) and (36) where the AGR-morpheme on each verb agrees with the *pro* subject in gender, person and number features. For instance, the AGR-morpheme on the verb (-aa) in (35) is a dual masculine and agrees with a dual masculine nominative subject, which is here the null *pro* subject. Similarly, the AGR-morpheme on the verb (-uu) in (36) is a third person plural masculine which agrees fully with a third person plural masculine nominative subject, i.e. the *pro*. This further demonstrates that the phi-features marked on each verb in (35) and (36) are distinguishable because of the richness of the visible verb inflection in Standard Arabic.

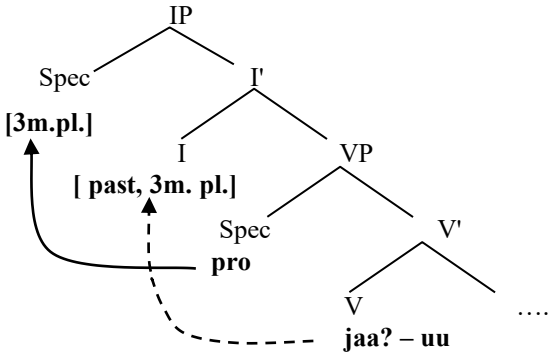
Since the features of the subject match the nominal features of I(NFL) in (35) and (36), the features of the subject (i.e. nominative Case and agreement features) will be checked in the course of derivation. Hence, feature checking takes place between a head and its specifier via a Spec-head agreement relationship (the latter is between the head I(NFL) position and the specifier position of IP). In the Spec-head configuration, agreement relations are highly local, where there has to be a feature match between the morphological features encoded in the functional head I(NFL) and those features of the subject encoded in the specifier of IP so that the derivation can show convergence. If not, the derivation will crash. In other words, the Spec-head agreement relationship involves checking the nominative Case features and the

agreement features of the *pro* subject as well as the tense feature of the verb. This can be illustrated on the tree-representation of the Arabic clause structure in (37).

37a.



37b.



Following Fakih's (2003, 2006, 2007a and b) minimalist analysis[7] of the verb feature licensing in Standard Arabic, we argue that the V-feature of I(NFL) is invariably strong in Standard Arabic. The strong features of the tense motivate the verb to move overtly to check off its morphological features against those features encoded in the head I(NFL) position of IP. If the verb features match the morphological features of the functional head (i.e. the head I(NFL) position) it adjoins to, the features of the verb will be licensed, as shown in the grammatical representations in (37a and b), thus ensuring that feature checking takes place between adjoined elements in a head. In (37a and b) the verb undergoes overt raising/movement to check its tense features against those abstract morphological features encoded in the functional head I(NFL) position. Once features are checked, they get erased in the syntax.

[7] In Fakih (2003, 2006, 2007a and b) we assumed that the V-feature of I(NFL) is strong in Standard Arabic on the assumption that the richness of the visible verb inflection forces strong inflections to move overtly for feature checking considerations.

6. Conclusion

This paper has explored the syntax of the null *pro* subject in Early Modern English, Standard Arabic and Modern Standard English and has shown that the grammar of Early Modern English and Standard Arabic differs from that of the latter (i.e. Modern Standard English). In finite clauses of Early Modern English and Standard Arabic the subject position can be occupied by an empty category, *pro*. However, this property is not found in Modern Standard English because the latter is not a pro-drop language. That is, there is a parametric variation between Early Modern English and Standard Arabic, on the one hand, and Modern Standard English, on the other, in respect of the null subject parameter in that Early Modern English and Standard Arabic allow the null category *pro* in the subject position of finite clauses, with *pro* having the interpretation of a subject pronoun. It can be pointed out that the availability of the null *pro* subject in Early Modern English and Standard Arabic and its absence in Modern Standard English is related directly to the idea that verbal agreement inflection in Early Modern English and Standard Arabic is richer than in Modern Standard English.

This study has shown that finite verbs in Early Modern English and Standard Arabic have strong agreement features (because of the rich agreement inflections they carry) and consequently allow the null subject *pro* to occur in the structural subject position, whereas their counterparts in Modern Standard English have weak agreement features (due to their poor agreement morphology) and so do not allow the occurrence of the null subject *pro* at all. It has been illustrated that the strong agreement features of finite verbs in Early Modern English and Standard Arabic are licensed by overt movement of the verb from the head V position of VP to the functional head I(NFL), whereas the weak agreement features of finite verbs in Modern Standard English are checked at LF. It should be mentioned that this kind of V-movement operation of finite verbs from the head V position of VP to INFL is productive in Early Modern English and Standard Arabic. Moreover, the fact that Early Modern English and Standard Arabic allow the null argument *pro* is so much due to the presence of overt (subject) agreement inflection. This can be attributed to their rich agreement inflection which can license the null *pro* as a lexical property; it is this lexical property which can account for the parametric difference between Early Modern English and Standard Arabic, on the one hand, and Modern Standard English, on the other. The rich agreement inflection on the verb morphology in Early Modern English and Standard Arabic serve to identify the morpho-syntactic properties of the null *pro* subject, since the feature-content of the latter can be recovered from the AGR-morpheme on the verb.

Given checking theory, it has been pointed out that the V-feature of I(NFL) is strong in Early Modern English and Standard Arabic due to strong inflection which forces overt movement of the verb in finite clauses. However, the V-feature of I(NFL) is weak in Modern Standard English and as a result the verb can only move at LF to check its features.

Furthermore, since Early Modern English and Standard Arabic allow the *pro* element in finite clauses, it undergoes syntactic movement from [Spec, VP] to [Spec, IP] in order to license its nominative Case and agreement features. Hence, the

null *pro* subject in Early Modern English and Standard Arabic receives nominative Case and is licensed by rich agreement inflection on the verb.

Moreover, the analysis of the null *pro* subject in Standard Arabic has shown an interesting observation. It has pointed out that the subject *pro* appears to have the same morpo-syntactic agreement properties both in the VSO and SVO structures with null *pro* subjects. Given feature licensing, we have assumed that the D-feature of I(INFL) is strong in the VSO and SVO structures in Standard Arabic. Based on this, we have argued that the null *pro* subject moves from [Spec, VP] to [Spec, IP] to check its nominative Case and agreement features in a Spec-head agreement relation. We have also assumed that the V-feature of I(NFL) is invariably strong in Standard Arabic. As a consequence, the verb moves overtly from the head V position of VP to the head INFL position. The movement of the *pro* subject and the verb is driven by the necessity to check the morphological features via a Spec-head agreement relation, where the nominative Case and the agreement features of the subject as well as the tense feature of the verb are licensed, thus ensuing that all features are interpretable in the syntax.

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