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Pro-Drop in Hijazi Arabic: A Minimalist Perspective

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Abstract

This paper focuses on investigating the null subjects in Hijazi Arabic and addresses how they are derived and interpreted. There is a strong connection between rich verbal agreement inflection and pro-drop in HA due to the language's highly inflectional nature. It is shown in this paper that HA is a consistent null subject language. This study is framed within Holmberg's (2005, 2010) theory of null subjects. Holmberg proposed that null subjects (henceforth NSs) are defective subject pronouns labeled □Ps. The null subjects are derived via incorporation into T after the features valuation and union take place. The head T (a probe) has unvalued □-features which are valued by the defective subject pronoun (a goal) and in return, the [u case] feature on □P is valued by T. The incorporation of □P into T forms a chain which is subject to chain reduction where the lower chain copy (the defective subject pronoun in spec-VP) receives a null spell out. The pronounced elements consist of the valued φ-features of T, which manifest as a verbal affix on the finite verb subsequent to the verb's incorporation into T. This reflects the deletion of the subject in spec-VP. The null subject is interpreted as a definite 3rd person null subject when the [uD(efiniteness)] feature of □P is valued by an A-Topic (antecedent) in spec-TopP. On the other hand, it is interpreted as a definite 1st or 2nd person null subject if it is valued by speaker/addressee features in the domain of C (Complementizer).

Keywords: Null subject, uD-feature, Chain, Incorporation, ϕP, Agree Relation, Unvalued φ-features, Hijazi Arabic, A-Topic

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Introduction

Hijazi Arabic (HA) is a dialect spoken in the west of Saudi Arabia, and it remains a relatively underexplored dialect in the region, particularly concerning its syntax. This paper studies the urban HA variant that is spoken in Taif city, of which the author is a native speaker. The paper will completely focus on the pro-drop/null subject phenomenon in matrix clauses in HA. Specifically, the study will be restricted to the derivation and interpretation of the null subjects. Prior to previous knowledge, there are no serious studies of the null subjects in HA within any syntactic framework. Nevertheless, the null subjects in Standard Arabic (SA) have aroused increased interest from contemporary Arab syntacticians using the Government and Binding Theory (GB) as a pre-minimalist approach (Mohammad, 1990, 2000; Ouhalla, 1994, among others) or the minimalist syntax (Olarrea, 1996; Soltan, 2006). Since the research on the null subjects in HA is minimal, this paper attempts to provide a minimalist analysis under the theory of null subjects advocated by Holmberg (2005, 2010). Cross-linguistically, natural languages are categorized into two groups based on their capacity to omit the subject of finite clauses: namely, pro-drop languages and non-pro-drop languages. Pro-drop languages allow for unexpressed subject pronouns, whereas non-pro-drop languages require them to be overtly expressed. It is worth mentioning that the term "pro-drop" has been suggested in Chomsky's (1981) GB theory, and the null subject is often referred to as the "little pro" in syntactic theory in order to distinguish it from the "big PRO" in non-finite clauses (Chomsky, 1982). In addition to the aforementioned classification of natural languages, null subject languages (NSLs) have been typologically classified into four types (Camacho, 2013; Holmberg, 2010; Roberta D'Alessandro, 2014), namely: consistent null-subject languages, partial null-subject languages, expletive null-subject languages, and discourse null-subject languages. Consistent NSLs, which are exemplified by languages such as Arabic, Italian, Greek, Spanish, Turkish, among others, feature robust subject agreement morphology and allow the unrestricted omission of subjects. Partial NSLs include languages like Hebrew, Finnish, Russian, Brazilian Portuguese, and Marathi. These languages exhibit both agreement and referential null subjects, permitting the optional use of null pronominal subjects. Expletive null-subject languages allow the expletive pronoun to be unexpressed/dropped, but the referential pronoun is not permitted to be unexpressed. Although the discourse null-subject languages have no verbal morphology, they permit dropping subjects and objects. In other words, null subjects as well as objects are freely permitted without agreement of any kind (Huang, 1984; Tomioka, 2003).

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Literature Review

Early Theoretical Perspectives

Chomsky (1981) classified noun phrases in a language into overt and covert Noun Phrases (NPs) . The overt NPs involve R-expressions (reference expressions) or pronouns. In contrast, the covert NPs involve elements of the empty categories (EC) which are *pro*, PRO, and trace. Since this paper is essentially concerned with the category *pro*, other empty categories will not be considered here. Chomsky (1981) discussed properties associated with the null subject. It is always the subject of a finite clause. Additionally, due to the rich inflectional morphology agreement in phi-features regardless of being covert, the null subject is assigned case. He asserted that "pro" functions as a pronominal anaphor, but this assertion was later relinquished in Chomsky's (1982) work and in his subsequent publications (1986, 1991, and 1995).

Chomsky (1982) pointed out that *pro* is not [+anaphor, + pronominal], but [- anaphor, + pronominal]. This category has the full referential properties that a personal pronoun would have. Hence, *pro* is taken to be the null counterpart of overt pronouns. In addition, *pro* is licensed in both D(eep)-structure and S(urface)-structure. It was argued by Chomsky (1986) that the category *pro* is a type of parametric variation among languages. According to Chomsky's (1981) syntactic properties of *pro*, it is defined as the missing constituent in which only the phonetic features are null spell out.

There are divergent views on the reason behind allowing the subject to be unpronounced in finite clauses. One prevalent view is pertaining to the richness of inflectional morphology in some languages like Arabic, Italian, etc. Chomsky (1982) argued that *pro* is assigned case by AGR(eement) due to the strong agreement by which the subject in pro-drop languages can be identified. According to Chomsky (1982), AGR is assumed to carry Case in pro-drop languages (as in Italian) and does not have Case in non-pro drop languages (as in English). This perspective is also upheld by other linguists, including Haegeman (1994), Harbert (1995), Hyams (1986), Picallo (1984), Rizzi (1982), and Taraldsen (1978). Taraldsen (1978) argued that null subjects are all empty NPs, and they are allowed to be null owing to the rich verbal inflectional system. Haegeman (1994) emphasized that rich agreement inflectional morphology is the only property that allows and identifies the null subjects. Harbert (1995) observed that the pro-drop is associated with agreement morphology in two aspects. First, the subject is dropped in languages which exhibit rich subject-verb agreement such Spanish and Italian. Second, pronouns can be left unexpressed/unpronounced in positions other than the subject where they exhibit agreement morphology. An example of this situation was given by Huang (1989) when discussing Pashto. In this language, an object pronoun can receive a phonetic null realization in a perfect tense sentence where the verb shows agreement morphology as a result of

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agreeing with the object pronoun. The other opposing view was taken by Jaeggli and Safir (1989). They claimed that it is not the rich agreement morpholoy which is responsible for allowing pro-drop, but it is the morphological uniformity that plays a crucial role in allowing a null subject. In other words, the permission of null subjects in a language is linked to uniform morphological agreement paradigms. For them, a morphologically uniform language is the one that either has complete absence of inflectional endings like Chinese and Korean or relatively complete presence of inflectional endings like Italian and Spanish. English serves as an illustration of a non-morphologically uniform language due to the presence of inflectional morphemes in certain word forms, such as the 3rd person singular subject-verb agreement in the simple present tense ("he sleeps early"), while lacking such endings in other word forms, like the 1st person singular subject-verb agreement in the simple present tense ("I sleep early"). Other linguists such as Kenstowicz (1989) and Rizzi (1986) suggested that there are more than agreement features that need to be considered in permitting pro-drop. Kenstowicz (1989) claimed that licensing is not sufficient in allowing pro-drop. Rizzi (1986) posited two conditions for permitting *pro* in a language: licensing and identification. He made a distinction between the two conditions. The licensing condition refers to the idea that there is a licenser/a licensing head for *pro* and as the licensing condition is applied to all positions where *pro* occurs, there are different licensing heads. Therefore, *pro* occupying the subject position is licensed by INFL (ection) head, and *pro* appearing in the object position is licensed by V(erb) head. There exist languages which do not have licensing heads, and thus the null subject is not allowed to appear in any position at all as in English. It is a matter of cross-linguistic variation with respect to the presence or absence of licensing heads. As far as the identification requirement is concerned, it is applicable only to referential *pro*, and it is not an obligatory procedure. Rizzi (1986) argued that the person agreement feature is specified on INFL. Due to the optionality of the identification condition, some languages, such as German, will not permit referential *pro* even though INFL has person agreement feature specification. On the other hand, in other languages such as Spanish in which INFL has specification of the person feature, proper licensing and identification of referential *pro* will be sanctioned. For successful identification of *pro*, coindexation of *pro* with the person/number features of its case-assigning and governing head is really essential.

Later Theoretical Perspectives

Speas (1994, 2006), drawing on Chomsky's (1991) Principle of Economy, which dictates that XP does not project unless it contains overt material, proposed that the differentiation between NSLs and non-NSLs

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hinges on whether AgrP (Agreement Projection) projects and whether it contains explicit material. Additionally, her idea depends on licensing AgrP rather than *pro*. According to her, the projection of AgrP relies on the existence of overt material either in AgrP head or its specifier. Therefore, the licensing of AgrP projection in languages with rich agreement morphology results from the insertion of the agreement morpheme as an independent lexical item in the head of AgrP. As a result, *pro* is inserted into the specifier position of V. AgrP can also be licensed when its specifier hosts an explicit subject. This situation arises in languages with limited agreement morphology where pro-drop is prohibited. As for languages which do not have agreement morphology, insertion of *pro* is ruled in as AgrP is not required to be projected.

Nonetheless, her analysis overlooks the differentiation between partial and consistent null-subject languages (NSLs). It also allows for pro-drop in languages with limited agreement features, such as Brazilian Portuguese.

Another analysis within early Minimalism was offered by Radford (1997) where he proposed that the occurrence of the null subject in a language relies on whether the tensed verbs have strong agreement features or not. In other words, there is a correlation between the richness of agreement morphology and the strength of the agreement features carried by finite verbs. As a result, the strong agreement features carried by the tensed verb cause the verb to move from V to INFL, consequently permitting pro-drop. However, when finite verbs lack strong agreement features, the movement from V to INFL does not occur, leading to the exclusion of the null pro subject. The recoverability of the identity of the null *pro* subject is easy particularly when a language possesses a highly inflectional agreement system.

Holmberg (2005, 2010) is another minimalist account where he developed a theory of null subjects. Holmberg offered criticism regarding Rizzi's (1982) parameters aimed at distinguishing between NSLs and non-NSLs. One of these parameters emphasizes the concept of pronoun referentiality. Rizzi (1982) suggested that "INFL can be specified [+pronoun], and INFL which is [+pronoun] can be referential"(p. 142). This parameter differentiates between NSLs that permit referential and non-referential null subjects, and those which only permit non-referential null subjects. Holmberg (2005, 2010) contended that the concept of referentiality lacks accuracy as it fails to encapsulate the distinction wherein certain languages allow definite null subjects while others prohibit them. For example, not all types of null subjects (e.g., null generic pronouns) that are permitted in partial NSLs are permitted in consistent NSLs and vice versa. On the other hand, indefinite null subjects and expletive null subjects are permitted in some languages but not allowed in others. In addition, pro-drop is not permitted at all in some languages. Therefore, Holmberg (2005, 2010) argued that the criterion that should be used to distinguish between NSLs and non-NSLs is definiteness

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rather than referentiality. In Holmberg's (2005) reevaluation of Rizzi's parameter concerning INFL being specified [+pronoun] and referential, he proposed revised assumptions aligning with the study of Cardinaletti and Starke (1999).

(1) a. "Pronouns are either DPs, with the structure [DP D [ϕP ϕ [NP N]], or ϕPs;
b. Null pronouns are ϕPs." (Holmberg, 2005, p. 10)

'ϕP' is a defective 3rd person pronoun. It is labelled as such after Déchaîne and Wiltschko (2002). As depicted in (1), Holmberg (2005) introduced a typology of null pronouns, classifying them into two categories: defective (weak) pronouns and pronouns categorized as DPs. Additionally, he proposed that finite T(ense) in consistent NSLs has a valued definiteness feature, while the one in partial NSLs does not host a D(efiniteness) feature. However, Holmberg (2010) noticed that his assumption of the definiteness feature in T is problematic. First, some languages can have indefinite overt subjects which can establish an agreement relation with T. If T has a valued D-feature, then how can the presence of indefinite overt subject be accounted for? Thus, there will be a conflict between the D-feature in T and the occurrence of the indefinite subjects. Second, if it is assumed that finite T has an unvalued definiteness feature, the lack of a null indefinite subject pronoun will not be accounted for in NSLs. Drawing on Frascarelli (2007) and Samek-Lodovici's (1996) observation for a number of NSLs that 3rd person null subjects depend on an antecedent, Holmberg (2010) assumed that the same holds true for consistent NSLs. Consequently, in line with Frascarelli (2007), Holmberg (2010) adopted the view that "an Aboutness-shift topic (A-topic) is consistently syntactically represented in a designated A-topic position within the articulated C-domain, whether overtly or covertly" (p. 12). Additionally, Holmberg posited that "the antecedent of a null subject is a null A-topic base-generated in the C-domain of the clause directly containing the null subject" (p. 13). According to Holmberg (2010), these assumptions can solve the problem of the valued definiteness feature on T by proposing that the finite T in consistent NSLs hosts an unvalued D-feature which is valued by an A-topic yielding a definite defective 3rd person pronoun (ϕP). Conversely, in partial null-subject languages (NSLs), the finite T lacks a uD-feature, leading to the interpretation of a pronoun as "impersonal," either conveying a generic (inclusive or exclusive) or non-thematic understanding (p. 14). I am focusing my discussion solely on consistent null-subject languages (NSLs), using Arabic as a prime example of such a consistent NSL. The derivation of the null defective 3rd person pronoun involves incorporation into T, which is an idea familiar from the literature (Fassi Fehri, 1993; Platzack, 2004).

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Incorporation occurs during feature valuation via Agree relation in Chomsky's (2001) sense. Roberts' (2010) incorporation theory has been adopted by Holmberg (2010) in his theory of null subjects. Let us now see how the null defective 3rd person pronoun is derived and interpreted. The finite T functions as a probe by virtue of having unvalued ϕ-features and searches for a matching goal to value its features. It finds the defective subject pronoun in the spec-vP. Consequently, the unvalued ϕ-features on T are valued by the valued ϕ-features of ϕP. In other words, they are copied by T. In return, the defective subject pronoun has an unvalued NOM(inative) case feature which is valued by T. What is left is the valuation of the uD-feature on T which is valued by the null A-Topic in spec-CP. The valuation involves sharing the referential index of the A-Topic by *u*D. After the features valuation or copying occurs, the defective subject pronoun ϕ-features get incorporated into T resulting in the union of the ϕ-features of T and the subject. Roberts (2010) suggested that the features' copying operation is not distinguished from the copying that takes place in movement. As a result, the probe and goal make a chain which undergoes chain reduction.

The reduction process entails deleting all identical copies except for the highest one (Nunes, 2004). This reduction adheres to the rules outlined by Holmberg (2010, p. 15):

(2) a. Pronounce the highest chain copy.
b. Pronounce only one chain copy.

In conformity with the rules in (2), what is pronounced in the chain is the highest copy which is T, and the lower copy, which is the subject ϕP, gets a null spell out. After the incorporation of V+v into T takes place, the top copy of the chain is pronounced as an agreement bound morpheme on the finite verb or the auxiliary in T reflecting the identity of the subject. As far as the 1st and 2nd person null subjects are concerned, Holmberg (2010) adopted Sigurðsson's (2004) hypothesis which states that C in CP has speaker and addressee features by which the *u*D feature in T is valued yielding a definite 1st or 2nd person null subjects in the spec-vP. Since the null subjects are incorporated in T, Holmberg (2010) argued that the specifier of TP is not projected, and the EPP feature is valued by the null A-Topic when valuing the [*u*D] feature in T. The following structure in (3) shows the derivation of the null subjects discussed above:

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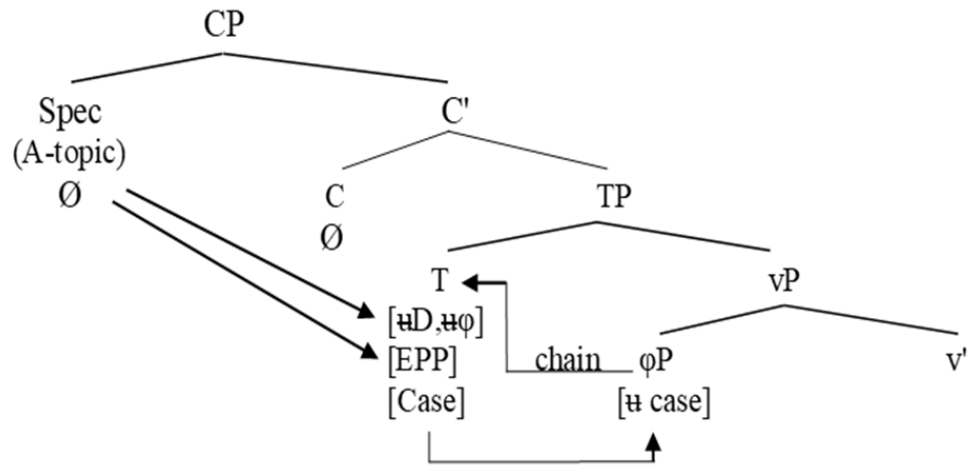
(3)



According to Holmberg (2010), when the subject is a lexical DP or a D-pronoun (i.e., with a valued D) occupies the spec-vP, the *u*D-feature of T will not be valued by the A-Topic, but rather it will be valued by the valued D feature of the subject in spec-vP. Irrespective of the mutual valuation between the subject and the finite T in case and D respectively, the chain will not be established between the probe and the goal. This is due to the absence of the subject's incorporation into T. The incorporation is precluded as a consequence of a root contained in the lexical DP which cannot be copied by T via Agree. Therefore, the lexical DP in spec-vP must be pronounced. Holmberg's theory will be adopted in this paper to account for the derivation and interpretation of the null subjects in HA as stated at the outset in the introduction.

Previous Studies of Pro in Arabic

The focus of the discussion of *pro* in the pre-minimalist studies in Arabic was mainly based on the phenomenon of full and partial agreement. Some of the studies proposed the existence of *pro* in order to account for the agreement asymmetry manifested in SA.[1] For instance, Mohammad (1999, 2000) postulated the presence of a null expletive subject occupying the spec-IP to account for the partial impoverished subject-verb agreement in VSO word order where the verb agrees with subject in gender only. The null expletive is invariably 3rd person singular. In this situation, the partial agreement is obtained via specifier-head relation between the empty expletive

[1]The verb exhibits full agreement in all φ-features with a preverbal subject DP, whereas the verb shows partial agreement in gender with a postverbal subject DP (e.g., AlQurashi, 2007; Aoun, Benmamoun & Sportiche, 1994; Fassi Fehri, 1993; Mohammad, 1999,2000; Ouhalla, 1994).

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in the spec-IP and its head I to which the verb moves. However, it is not clear to me how the gender agreement on the verb would be explained if the partial agreement is achieved as a consequence of agreement with a null 3rd person singular expletive pronoun. Mohammad's (1999, 2000) study offered a limited exploration of null subjects, focusing solely on a particular type without providing a comprehensive explanation regarding the derivation of the null subject. It was specifically focused on the agreement phenomenon in SA. Another study was conducted by Ouhalla (1994) where he suggested the existence of a resumptive *pro* generated in spec-AGR and coindexes with a preverbal DP which he analyzed as a topic rather than a subject. Again, his study was carried out for the purpose of accounting for word order and agreement in SA and did not involve a thorough discussion of all kinds of null subjects. In Fassi Fehri's (1993) analysis of bound pronominals affixed to verbs, he proposed that these pronominals serve as a mechanism to identify null arguments. Nonetheless, his account did not provide a comprehensive treatment of *pro* in SA.

Within early Minimalism (Chomsky 1995), Olarrea (1996) addressed the strong relationship between rich verbal inflection agreement and a null pronoun (*pro*) in SVO order. He assumed that AgrsP has multiple specifiers. The first upper specifier is occupied by a left-dislocated subject, whether it is a lexical DP or a pronominal, and the lower specifier is occupied by the *pro*. The *pro* originates in the spec-VP and then covertly moves to spec-Agrs (i.e., at LF). Furthermore, the verb overtly moves from V through T to Agrs. Hence, full agreement is sanctioned in a spec-head configuration. In VSO order, the null *pro* is not posited, but rather a lexical DP occupies the spec-VP. The precise features linked to the null pro that facilitate complete subject-verb agreement in SVO order remain unclear.

Within recent Minimalism (Chomsky, 2000, 2001), Soltan's (2006) account is somehow similar to Olarrea's (1996) analysis. However, Soltan adopted Chomsky's (2000) Agree relation. Soltan (2006) postulated the existence of a null *pro* in the spec-vP in SV order only. He further assumed that the preverbal DP is externally merged in spec-TP as a clitic left-dislocated DP. The problem with Soltan's analysis is how an unspecified pronoun for φ-features can establish an Agree relation with T to value its φ-features. Due to the incomplete and incomprehensive treatment of *pro* in SA, none of the above analyses will be adopted in this paper.

Methodology

This paper utilized a descriptive and analytical method. The data of the study has been collected from native speakers of HA. The author is a native speaker of the dialect, and the grammatical judgments presented in this paper are based on native-speaker intuitions. The total accessible population for the

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study was eighty adult informants of HA native speakers. As the population comprises both male and female , a sample size of forty were selected from them through stratified random sampling technique. They were consulted regarding the data and the grammaticality of the examples through interviews. The participants were requested to agree or disagree with the given sentences. If any disagreements occur, they offer the sentence substituting the given one. The informants' role was to provide the researcher with the relevant data. All the examples presented in this paper are the sentences that were given to the study informants, and they were employed to support the claim of this paper. The individuals providing information ranged from 30 to 55 years in age. The data collected was descriptively analyzed utilizing a Minimalist analysis advocated in Holmberg's (2005, 2010) theory of null subjects in order to examine the interaction between the assumptions of the theory and the null subjects in HA.

Background of Hijazi Arabic

One of the principal dialects spoken in Saudi Arabia is HA, primarily spoken in the western region of the country.[2] HA has two main dialects: Bedouin and Urban HA. Bedouin HA is spoken by those who live in the countryside. Generally, Urban Hijazi represents the prevailing dialect predominantly used by the populace residing in the principal cities such as Makkah, Jeddah, Madinah, Taif, and Yanbu. When referring to the Hijazi dialect, it denotes the prevalent linguistic dialect characterized by shared syntactic and morphological features across the cities and tribes of the Hijaz province (AlBarakati, 1984). HA grammar has received little attention in the literature as indicated in the introduction. However, there are a few studies investigating some linguistic aspects of this dialect. For example, Sieny (1978) studied the syntax of basic constructions in HA within the Tagmemics framework (Cook, 1969). Additional studies, such as Abaalkhail (1998), Al-Mozainy (1981), and Jarrah (1993) delved into phonological aspects concerning lexical phenomena, specifically focusing on vowel alternation and syllabification. Presently, limited number of studies has specifically delved into the syntax of HA, particularly concerning the null subject parameter, as highlighted in the introduction. In the following sections, a brief overview of the basic facts about word order and verb morphology in HA will be outlined and discussed

[2] The other two major dialects are Najdi and Sharqi spoken in the Central and Eastern provinces of Saudi Arabia, respectively.

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Word Order and Agreement in HA

Before delving into the null subjects, it is important to outline the word order in HA. Similar to SA and other Arabic dialects, HA manifests different word orders such as VS, VO, VOS, SVO, OVS, OSV, and VSO, as shown respectively in example (4).

(4)

a.	*raːħ*	***ʔal-wirç***	
	go.PFV.3SGM	DEF-boy.SGM	
	'The boy went.'		
b.	*ʔakal*	***t-tuffaːħah***	
	eat.PFV.3SGM	DEF-apple.SG	
	'He ate the apple.'		
c.	*ʔakal*	***t-tuffaːħ***	*Ali*
	eat.PFV.3SGM	DEF-apple.SG	Ali
	'Ali ate the apple.'		
d.	*Ali*	*ʔakal*	***t-tuffaːħah***
	Ali	eat.PFV.3SGM	DEF-apple.SG
	'Ali ate the apple.'		
e.	***t-tuffaːħah***	*ʔakal-**ha***	*Ali*
	DEF-apple.SG	eat.PFV.3SGM-it.SG	Ali
	'The apple, Ali ate it.'		
f.	***t-tuffaːħah***	*Ali*	*ʔakal-**ha***
	DEF-apple.SG	Ali	eat.PFV.3SGM-it.SG
	'The apple, Ali ate it.'		
g	*ʔakal*	*Ali*	***t-tuffaːħah***
	eat.PFV.3SGM	Ali	DEF-apple.SG
	'Ali ate the apple.'		

The word orders shown above in example (4 a, b, c, d, e, f) are common in HA. The VSO word order in example (4g) is less common than the other word orders. The SVO[3] is the unmarked word order in this dialect, while the VSO is the marked word order. The verbs in the examples given in (4e) and (4f) host a pronominal clitic (in boldface), which refers to the element realized in the initial position. Conversely, the verbs in example (4a, b, c, d, & g) do not host a pronominal clitic, which refers to the left-realized item. These word order variations indicate that word order in this dialect is not determined by grammatical functions or by thematic roles. However, these variations in word order serve pragmatic functions. This is expected since Li and Thompson (1976) categorized Arabic, alongside languages like Chinese,

[3] As mentioned earlier, preverbal DPs are analyzed as topics rather than subjects. If the preverbal DP is associated with a pronominal clitic on the verb as seen in (5e &f), it is treated as a CLLDed element.

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as topic-oriented, where word order is influenced minimally by grammatical functions. As far as the agreement is concerned, a verb exhibits full agreement with either a preverbal subject DP or postverbal subject DP in HA. Consider the following examples in (5) below.

(5)
a. *ra:ħ* ***l-wirç***
go.PFV.3SGM DEF-boy.SGM
'The boy went.'
b. ***ʔal-wirç*** *ra:ħ*
DEF-boy.SG go.PFV.3SGM
'The boy went.'
c. *ra:ħ-aw* ***l-wirç-a:n***
go.PFV-3PLM DEF-boy.PLM
'The boys went.'
d. ***ʔal-wirç-a:n*** *ra:ħ-aw*
DEF-boy-PLM go.PFV.3PLM
'The boys went.'
e. *ra:ħa-t* ***l-bint***
go.PFV-3SGF DEF-girl.SGF
'The girl went.'
f. ***l-bint*** *ra:ħa-t*
DEF-girl.SGF go.PFV.3SGF
'The girl went.'
g *ra:ħ-aw* ***l-bana:t***
go.PFV-3PLM DEF-girl.PLF
'The girls went.'
h ***l-bana:t*** *ra:ħ-aw*
DEF-girl.PLF go.PFV.3PLM
'The girls went.'
i ***ʔal-wirç-ain*** *ra:ħ-aw*
DEF-boy-DUAL.M go.PFV.3PLM
'The two boys went.'
j *ra:ħ-aw* ***l-wirç-ain***
go.PFV-3PLM DEF-boy.DUAL.M
'The two boys went.'

As seen from the examples above, HA exhibits full agreement in both number and gender between the verb and the subject DP, irrespective of whether the subject appears preverbally or postverbally. However, in examples (5g & h), the verbs seemingly display partial agreement in number, while the verbs in (5i & j) seem to show gender agreement. This occurrence can be attributed to the loss of the plural feminine marker and the dual number

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inflections, which typically function as agreement inflectional markers on verbs in HA. The dual number marker is specifically kept on nouns exclusively. The verb '*ra:ħ-aw*' in (5i & j) shows full agreement with the dual DP '*ʔal-wirç-ain*' in terms of number and gender. Since the dual number agreement marker on verbs is lost in HA, speakers of the dialect utilize the plural number agreement marker instead of the dual marker.[4] Similarly, the phenomenon extends to the plural feminine inflectional agreement marker, as observed in (5g &h), where the plural masculine agreement marker appears on the verb. The plural feminine marker morpheme '-n' which appears on verbs in SA is lost in HA. It is actually not employed at all in this dialect of Arabic. In short, the dual number agreement marker and the plural feminine agreement marker on verbs are lost in HA. Despite these facts, it can be said that full agreement between the verb and the preceding or the following subject DP is manifested in HA. The verb morphology and the agreement markers play a crucial role in the simplicity of the identification of the subject as shown in examples (5) above. Basically, the verb morphology bears the phi-features of the subject DP in the sense that the rich verbal inflection on the verb reflects agreement features that are required to reveal the subject features. Given that HA has a rich inflectional paradigm, the identity of the subject DP must be identified from the rich inflection on the verb, whether it is singular or plural. Syntacticians who consider the suffixes on the verbs in the aforementioned examples as agreement markers include Alexiadou and Anagnostopoulou (1998), as well as Ouhalla (1994). However, traditional Arabic grammarians treat them as the subject of the clause (AlAlamat, 2014). According to Fassi Fehri (1987), agreement markers are non-pronominal affixes (non-referential affixes) which solely function to indicate the subject gender and number on the verb. Prior to presenting HA data of null subjects, the properties of NSLs will be introduced and their application to HA will be tested in the following section.

Properties of Null-Subject Languages

Jaeggli (1982), Rizzi (1982), and other researchers have demonstrated a correlation between the features in (6) and null subject languages (NSLs), indicating a tendency for these features to group together.

(6) a. phonologically null subject pronouns (missing subjects)
b. free subject inversion
c. that-trace violation

[4]Actually, the dual number in HA is treated as a plural number when a verb agrees with a dual noun.

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Jaeggli (1982) and Rizzi (1982) propose that Italian, as a null-subject language, demonstrates a positive setting for these properties. Consequently, it disallows subject pronouns (7a), permits flexible subject placement after the verb (7b), and facilitates subject extraction from a complement clause introduced by "that" via Wh-movement (7c). However, a non-null-subject language like English shows negative setting for these features. Therefore, subject pronouns must be expressed overtly (7a), the appearance of the subject after the verb is not permitted as in (7b) , and the extraction of the subject of a "that" clause is not possible under Wh-movement (7c).

(7)	Italian	English
a.	Fuma	*Smokes
b.	Fuma Mario	*Smokes John
c.	Chi hai detto che fuma?	*Who did you say that _ smokes?

(Rizzi, 1982, p. 45)

Now, let us examine whether HA is positively set for these features.

Phonologically Null-Subject Pronouns in HA (missing subjects)

HA freely drops the pronouns in the subject position of finite clauses as illustrated below:

(8)	a.	sawwa-t	ʃa:hi:
		make.PFV-3SG.F	tea.SG
		'She made tea.'	
	b.	katab	risa:lah
		write.PFV-3SG.M	letter-SG.F
		'He wrote a letter.'	
	c.	wasˁal-u:	lba:riħ
		arrive.PFV-3PL.M/F	last night
		'They arrived last night.'	

Each sentence above lacks an overt subject yet remains grammatically correct. This is due to the fact that HA is a rich agreement language. The agreement morphology provides the person, gender, and number feature necessary to identify an empty subject. The agreement features are suffixed to the verb as in (8 a & c).

Free Inversion

The availability of free inversion in a language is an indication that the language is a null-subject language (Camacho, 2013; Chomsky, 1981; Cognola, 2013; Jaeggli, 1982; Kayne, 1975; Rizzi, 1982; Safir, 1985). Free

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inversion languages allow the subject to appear on either side of the verb in any sentence. Stated differently, a language exhibiting free inversion possesses an alternative word order of verb-subject (VS) in addition to the default subject-verb (SV) order.

Free inversion solely involves the subject and verb, excluding other verb arguments such as the direct object. HA displays free inversion as demonstrated in the following examples.

(9) a. Ali ra:ħ
Ali go.PFV-3SG.M
'Ali went.'

b. ra:ħ Ali
go.PFV-3SG.M Ali
'Ali went.'

The SV and VS word orders in example (9) are both grammatical, and the meaning of the sentences are identical despite the change in word order. As argued by Chomsky (1981), if a language allows pro subjects, then that language also allows free inversion.

That-Trace Violation

Prior to discussing the that-trace effect in HA, it is necessary to explain the meaning of the that-trace effect/violation. It is the phenomenon whereby the complementizer 'that' cannot be followed by a trace (except in relative clauses) in some languages (Chomsky, 1986). Languages demonstrating the that-trace effect are those where an overt complementizer like 'that' in English cannot be followed by a subject trace. In these languages, a subject cannot be extracted when it follows 'that' (Chomsky, 1986; Kayne, 1984; Perlmutter, 1971). Languages that display the that-trace effect are considered to adhere to its filter. Typically, these languages are non-NSLs. Now, let us examine if HA adheres to the that-trace effect or not. Consider the following examples in (10) below.

(10) a. *mi:n te-ħassib inn t fataħ l-ba:b
who 2SG-believe.IPFV.M that trace open.PFV.3SGM DEF-door.SG
*'Who do you think that t opened the door?'

b. mi:n te-Hassib inn-uh fataħ l-ba:b
who 2SG-believe.IPFV.M that.3SG.M open.PFV.3SGM DEF-door.SG
'Who do you think that opened the door?'

The example in (10a) demonstrates the surprising ungrammaticality of extracting the wh-phrase in the lower clause, considering that null-subject

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languages (NSLs) typically allow for a subject trace after the complementizer 'that'. This suggests that HA seems to pattern with non-NSLs in this feature. Example (10b) is the counter grammatical version of (10a) where a cliticized pronoun is realized on the complementizer 'inn'. A number of Arab linguists (cf. Akkal, 1996; Berjaoui, 2009; Ouhalla, 1997) have argued that the preverbal Determiner Phrase (DP) in SA is a topic rather than a subject. In other words, the order of subject-verb-object is exactly the same as topic-verb-object, which will be the assumption for HA. Since the that-trace effect only influences a subject trace, HA is not subject to this filter because of the assumption that the nominal element following the complementizer 'ʔinn' functions as a topic, not a subject. According to the traditional view of the that-trace filter, an overt subject DP must follow the complementizer. Nonetheless, it is observed in declarative complement clauses introduced with the complementizer 'ʔinn' in HA, just like SA, that the complementizer can be followed by an object. Consider the following example in (11) below.

(11) a. ħassab-t inn l-walad$_i$ ðˤarab-uh$_i$ Ali
believe.PFV-1SG.M that DEF-boy.SG.M hit.PFV-3SGM.OBJ Ali
'I thought that the boy was hit by Ali.'

b. ħassab-t inn s-sayya:rah$_i$ sarag-ha$_i$ l-walad
believe.PFV-1SG.M that DEF-car.SG.F steal.PFV-SG.OBJ DEF-boy.SG.M
'I thought that the car was stolen by Ali.'

The DPs 'alwalad' and 'assayyarah' function as the objects/complements of the verbs 'ðˤarab' and 'sarag', respectively. This is evident as the resumptive clitics on the verbs refer to the DPs occurring after the complementizer 'ʔinn'. This is known in the literature as the Clitic Left Dislocation (CLLD). In addition, this phenomenon is typically characterized by the existence of a lexical DP positioned at the beginning of a clause, which is correlated with a resumptive pronoun that becomes integrated into the verb within the corresponding sentence (Aoun & Benmamoun, 1998 for Lebanese Arabic; Cinque, 1977 for Italian; Escobar, 1997 for Spanish; Villalba, 2000 for Catalan). The pronominal clitic related to the CLLDed element is a direct object clitic. An additional backing for this stance is the observation that in SA, the DP following the complementizer 'ʔinna'—whether directly after it as in (12a) or with an intervening element like a prepositional phrase (PP) as in (12b)—necessitates an accusative case (Alotaibi, 2019; Alotaibi & Borsley, 2013; Aoun, 1981; Berjaoui, 2009). This is illustrated in the following example in (12) below.

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(12) a. qult-u ʔinna r-rajul-a wasˤala
say.PFV-1SG.M that DEF-man.SG.M.ACC arrive.PFV.SG
'I said that the man arrived.'

b. qult-u ʔinna fi: l-bayt-i rajul-a-n
say.PFV-1SG.M that in DEF-house-GEN man.SG.M.ACC-INDEF
'I said that there is a man in the house.' (Alotaibi, 2019, p. 1302)

The ungrammaticality of (10a) does not arise due to the that-trace effect, but rather from the premise that the DP after the complementizer functions as a topic and can occasionally be followed by an object. In other words, it involves extracting a topic rather than a subject, with the former being unaffected by the that-trace effect. If it is assumed that HA has abstract case system, it can be suggested that the ungrammaticality also results from the lack of an overt accusative DP, just like SA. Hence, HA does not allow for the violation of the that-trace effect, and its pattern differs from non-null subject languages (NSLs). Consequently, it can be inferred that HA qualifies as a pro-drop language, consistently aligning with the characteristics of null-subject languages (NSLs).

5. Pronominals and the Null Subjects in Hijazi Arabic

HA has rich agreement inflections concerning how pronominal subjects can be used before finite verbs, as illustrated below.

(13) a. *ʔana:* ***ʔ-****tfarraʤ* *ʧala:* *l-muba:ra:h*
I 1SGM-watch.IPFV on DEF-match.SG
'I watch the match.'

b. *ʔant* ***ti-****tfarraʤ* *ʧala:* *l-muba:ra:h*
you.SGM 2SGM-watch.IPFV on DEF-match.SG
'You (male) watch the match.'

c. *ʔant-i* ***ti-****tfarraʤ****-ain*** *ʧala:* *l-muba:ra:h*
you-SGF 2-watch.IPFV-SGF on DEF-match.SG
'You (female) watch the match.'

d. *hu:* ***y-****tfarraʤ* *ʧala:* *l-muba:ra:h*
he 3SGM-watch.IPFV on DEF-match.SG
'He watches the match.'

e. *hi:* ***ti-****tfarraʤ* *ʧala:* *l-muba:ra:h*
she 3SGF-watch.IPFV on DEF-match.SG
'She watches the match.'

f. *ʔiħna:* ***ni-****tfarraʤ* *ʧala:* *l-muba:ra:h*
we.PLM/F 1PLM/F-watch.IPFV on DEF-match.SG
'We watch the match.'

g *ʔant*-um ***ti-****tfarraʤ****-awn*** *ʧala:* *l-muba:ra:h*
you.PLM/F 2-watch.IPFV-PLM/F on DEF-match.SG
'You (M/F) watch the match.'

h hum ***y-****tfarraʤ****-awn*** *ʧala:* *l-muba:ra:h*
they.PLM/F 3-watch.IPFV-PLM/F on DEF-match.SG
'They (M/F) watch the match.'

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The sentences in example (13) reveal that the inflectional paradigm in HA is highly rich. This is demonstrated by the various forms of affixes attached to the finite verbs. Similar to other Arabic dialects, the pronominal paradigm illustrated in example (13) indicates the absence of dual pronouns in HA, a characteristic that contrasts with Standard Arabic (Mohammad, 2000). All the pronominal subjects in the examples can be dropped without affecting the syntactic and semantic content of the construction. The following examples illustrate this point:

(14)

a.	**pro**	*ʔa-tfarraʤ*	*çala:*	*l-muba:ra:h*
	1SGM/F	1SGM-watch.IPFV	on	DEF-match.SG
	‘I am watching the match.’			
b.	**pro**	***ti-****tfarraʤ*	*çala:*	*l-muba:ra:h*
	2SGM	2SGM-watch.IPFV	on	DEF-match.SG
	‘You (male) are watching the match.’[5]			
c.	**pro**	***ti-****tfarraʤ* ***-ain***	*çala:*	*l-muba:ra:h*
	2SGF	2-watch.IPFV-SGF	on	DEF-match.SG
	‘You (female) are watching the match.’			
d.	**pro**	***y-****tfarraʤ*	*çala:*	*l-muba:ra:h*
	3SGM	3SGM-watch.IPFV	on	DEF-match.SG
	‘He is watching the match.’			
e.	**pro**	***ti-****tfarraʤ*	*çala:*	*l-muba:ra:h*
	3SGF	3SGF-watch.IPFV	on	DEF-match.SG
	‘She is watching the match.’			
f.	**pro**	***ni-****tfarraʤ*	*çala:*	*l-muba:ra:h*
	1PLM/F	PLM/F-watch.IPFV	on	DEF-match.SG
	‘We are watching the match.’			
g.	**pro**	***ti-****tfarraʤ* ***-awn***	*çala:*	*l-muba:ra:h*
	2PLM/F	2-watch.IPFV-PLM/F	on	DEF-match.SG
	‘You (M/F) are watching the match.’			
h.	**pro**	***y-****tfarraʤ* ***-awn***	*çala:*	*l-muba:ra:h*
	3PLM/F	3-watch.IPFV-PLM/F	on	DEF-match.SG
	‘They (M/F) are watching the match.’			

Example (14) demonstrates that all overt subject pronouns in example (13) can be omitted, preserving both semantic and grammatical correctness while conveying identical meanings. This occurs by virtue of the rich inflectional morphology of the verb in HA. The agreement affixes on the verbs play a pivotal role in the recovery and the identification of the subject. In the case of plural feminine nouns, the gender of the subject can be identified via the context of discourse or the context in general, whether the subject is plural feminine or plural masculine. The ambiguity arises between example (14b), featuring a second-person singular masculine subject, and example (14e), where the subject is a third-person singular feminine. Despite differing

[5] Example (14b) can be used as an interrogative where the subject is 2nd person singular masculine (***ti-****tfarraj çala: l-mubarah* ?)

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subjects, they share identical verbal inflections, contributing to this ambiguity. Nevertheless, this can be disambiguated by the context. Some examples where the unexpressed/dropped subjects are DPs and not pronominals can be seen below.

(15)

a.	*ʔal-wirç*	***gara:***	*l-gisʿah*
	DEF-boy.SG	read.IPFV.3SGM	DEF-story.SG
	'The boy read the story.'		
b.	**pro**	***gara:***	*l-gisʿah*
	3SGM	read.IPFV.3SG	DEF-story.SG
	'He read the story.'		
c.	*ʔal-wirç-a:n*	***gar-aw***	*l-gisʿah*
	DEF-boy-PL	read.IPFV-3PL	DEF-story.SG
	'The boys read the story.'		
d.	**pro**	***gar-aw***	*l-gisʿah*
	3PL	read.IPFV-3PL	DEF-story.SG
	'They (male) read the story.'		
e.	*ʔal-bint*	***gara-t***	*l-gisʿah*
	DEF-girl.SG	read.IPFV-3SGF	DEF-story.SG
	'The girl read the story.'		
f.	**pro**	***gara-t***	*l-gisʿah*
	3SGF	read.IPFV-3SGF	DEF-story.SG
	'She read the story.'		
g.	*ʔal-ban-a:t*	***gar-aw***	*l-gisʿah*
	you.PLM/F	read.IPFV-3PL	DEF-story.SG
	'The girls read the story.'		
h.	**pro**	***gar-aw***	*l-gisʿah*
	they.PLM/F	read.IPFV-3PL	DEF-story.SG
	'They (female) read the story.'		

Just like example (14) above, example (15) illustrate that HA permits the occurrence of the null pro subject. As indicated above, the rich verbal inflection on the verb reflects agreement features that are required to reveal the subject features or the phi-features (person, number, and gender) of the subject DP. In some cases, as shown in example (15d & h), the inflectional suffix '*-aw*' on the verb is an agreement marker of a third-person plural masculine or feminine. As mentioned earlier, the plural feminine inflection is lost in this dialect. To determine whether the plural subject is feminine or masculine, the context of discourse is very helpful in revealing the identity of the subject with respect to the gender of the subject. The instances in examples (14) and (15) showcase HA's allowance for overt omission of subject DPs. This observation supports the conclusion that HA qualifies as a pro-drop language, consistently aligning with the traits of NSLs.

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Analysis

Holmberg's (2010) Theory and the Null Subjects in HA

Adopting Holmberg's (2010) theory of null subjects, this section attempts to offer an account of the null subjects in HA, and how they are derived and interpreted. Recalling the HA data given in example (14) above, it is repeated here for convenience in example (16), where the subjects are null.

(16)

a.	**pro**	*ʔa-tfarraʤ*	*ɕala:*	*l-muba:ra:h*
	1SGM/F	1SGM-watch.IPFV	on	DEF-match.SG
	‘I am watching the match.’			
b.	**pro**	***ti-****tfarraʤ*	*ɕala:*	*l-muba:ra:h*
	2SGM	2SGM-watch.IPFV	on	DEF-match.SG
	‘You (male) are watching the match.’			
c.	**pro**	***ti-****tfarraʤ* ***-ain***	*ɕala:*	*l-muba:ra:h*
	2SGF	2-watch.IPFV-SGF	on	DEF-match.SG
	‘You (female) are watching the match.’			
d.	**pro**	***y-****tfarraʤ*	*ɕala:*	*l-muba:ra:h*
	3SGM	3SGM-watch.IPFV	on	DEF-match.SG
	‘He is watching the match.’			
e.	**pro**	***ti-****tfarraʤ*	*ɕala:*	*l-muba:ra:h*
	3SGF	3SGF-watch.IPFV	on	DEF-match.SG
	‘She is watching the match.’			
f.	**pro**	***ni-****tfarraʤ*	*ɕala:*	*l-muba:ra:h*
	1PLM/F	PLM/F-watch.IPFV	on	DEF-match.SG
	‘We are watching the match.’			
g.	**pro**	***ti-****tfarraʤ* ***-awn***	*ɕala:*	*l-muba:ra:h*
	2PLM/F	2-watch.IPFV-PLM/F	on	DEF-match.SG
	‘You (M/F) are watching the match.’			
h.	**pro**	***y-****tfarraʤ* ***-awn***	*ɕala:*	*l-muba:ra:h*
	3PLM/F	3-watch.IPFV-PLM/F	on	DEF-match.SG
	‘They (M/F) are watching the match.’			

Even though the subjects are unexpressed in example (16), they can be easily identified and recovered by virtue of the verbal inflections. Sometimes, as mentioned before, the context is helpful in resolving the ambiguity occurring between examples (16b) and (16e). The verbs in these two examples bear the same agreement prefixes indicating a 2nd person singular masculine subject and a 3rd person singular feminine subject respectively.

According to Holmberg (2010), finite T in consistent NSLs has an *u*D-feature as part of the unvalued φ-features. The *u*D-feature is valued by an antecedent, A-topic in the sense of Frascarelli (2007) positioned in the C-domain, on which 3rd person null subjects are dependent. I assume that any preverbal DP in HA is a topic functioning as an antecedent (A-topic) of 3rd person null subjects. In this case, the A-topic is represented overtly in the spec-Top. In line with Holmberg (2010), it is assumed that the A-topic may be

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covertly represented within spec-TopP. This encompasses not just preverbal DPs serving as topics but also pronominals. Let us consider the following examples, most of which are provided in example (15) above, repeated in (17) below:

(17)

a.	*ʔal-wirç*	***gara:***	*l-gisʿah*
	DEF-boy.SG	read.IPFV.3SGM	DEF-story.SG
	'The boy read the story.'		
b.	*hu*	***gara:***	*l-gisʿah*
	he	read.IPFV.3SGM	read.IPFV.3SGM
	'He read the story.'		
c.	**pro**	***gara:***	*l-gisʿah*
	3SGM	read.IPFV.3SG	DEF-story.SG
	'He read the story.'		
d.	*ʔal-wirç-a:n*	***gar-aw***	*l-gisʿah*
	DEF-boy-PL	read.IPFV-3PL	DEF-story.SG
	'The boys read the story.'		
e.	*hum*	***gar-aw***	*l-gisʿah*
	they	read.IPFV-3PL	read.IPFV-3PL
	'They read the story.'		
f.	**pro**	***gar-aw***	*l-gisʿah*
	3PL	read.IPFV-3PL	DEF-story.SG
	'They (male) read the story.'		

The term "pro" does not specify the null subject's position. Therefore, it is suggested that in HA, the subject consistently occupies the spec-VP, whether overtly or covertly (as null subjects). Furthermore, it is opined that all the examples in (17) above feature a null pro. The preverbal DPs in examples (17a) and (17d) are not subjects, rather they are topics serving as antecedents (A-topics) to the null subjects in spec-VP. In the cases of examples (17c & f), the sentences contain null A-topics as proposed by Holmberg (2010). The following structure in (18) below is the syntactic representation of example (17a).

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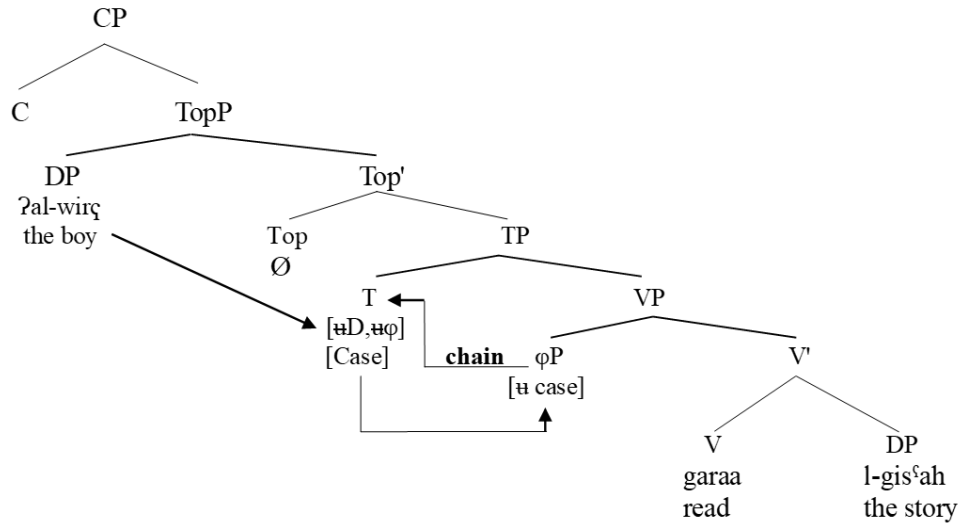
(18)



What is interesting about the representation in (18) is that it is a specTP-less structure. I propose that T lacks the EPP feature because, according to the earlier proposition, the subject in HA originates in spec-VP and does not undergo movement in both SV and VS orders. Additionally, any DP appearing before the verb is initially generated in spec-TopP. The rationale behind merging the preverbal DP in HA into spec-TopP rather than spec-CP is that when a complementizer such as 'ʔinn' ('that') is present, it precedes the preverbal DP. This is demonstrated in the following example in (19):

(19)	a.	*ħassab-t*	*inn*	*l-wirç*	***garaa***	*l-gisʕah*
		think.PFV-1SGM/F	that	DEF-boy.SG	read.PFV.3SGM	DEF-story.SG
		'I thought that the boy read the story.'				

The derivation of the null subject proceeds when T (the probe) searches for a matching goal and finds the defective subject pronoun (φP) in spec-VP, and it copies its φ-features. In return, the T values the unvalued [*u* case] feature of φP. After the feature valuation, the φPφ-features get incorporated into T resulting in a union of T and the defective pronoun φ-features. Once the incorporation takes place, a chain is formed between the head T and the defective subject pronoun which undergoes a chain reduction. The chain reduction conforms to two rules suggested by Holmberg (2010). What is pronounced here is only one chain copy which is the highest copy of the chain. According to these rules, the defective subject pronoun in spec-VP receives a null spell out (i.e., not pronounced) and the φ-features on T is pronounced on the verb as a suffix after the verb gets incorporated into T. The uD feature obtains its value through the A-Topic 'ʔal-wirç' ('the boy') in spec-

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TopP. This yields a definite null 3rd person singular subject pronoun, correlating with the referential index of the A-topic. The identical mechanism is applied to derive the definite 3rd person null subject pronoun in cases where there is a covert A-Topic, as seen in examples (17c &f). In instances where there is no A-topic and the C-domain contains features relating to the speaker or addressee, the uD feature of the defective subject pronoun acquires its value from these speaker/addressee features. Consequently, a definite 1st or 2nd person null subject is established.

Conclusion

The paper has discussed the derivation and interpretation of null subjects in HA within a minimalist perspective advocated by Holmberg (2005, 2010). The paper has offered a principled account of null subjects in HA and has shown that the data exhibited positive interaction with Holmberg's (2005, 2010) theory, supporting its tenets and premises. It is proposed that the null subject originates in the spec-VP in SV and VS orders. Since HA lacks the EPP feature, the spec-TP does not extend, leading to the absence of subject movement. The verb always moves from V to T as the φ-features on T appear as an affix on the finite verb. The φ-features on T are valued by their counterpart of the defective subject pronoun (φP) via incorporation as a result of Agree. Copying the φ-features values of φP by T initiates chain formation between T and φP. As per Holmberg (2005, 2010), only the top chain copy is articulated, while the lower chain copy (the defective subject pronoun) remains unpronounced. This process culminates in deriving the null pro subject. The unvalued D feature of φP receives its value from an A-Topic in spec-TopP, resulting in a definite 3rd person null subject. Thus, the definite 1st or 2nd person null subject is obtained via valuation of the *u*D feature of T by speaker/addressee features in the C-domain. The study is hoped to contribute significantly to the null subjects in Arabic syntax and the world's languages and to be an asset to the theoretical literature.

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