Independent and Subordinate Subjunctive Phrases and Theta-Marking in Arabic Syntax: A Minimalist View

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Abstract—The objective of this work is to specify the actual structures of independent and dependent subordinate subjunctive clauses visible with the complementizer ?an 'that' at spell out and exclude mandative phrases in Modern Standard Arabic. The problems: There is a confusion to specify the actual structures of such phrases whether they are complementizer phrases [C"s] or tense phrases [T"s]. It is also difficulty to decide whether the phrases constitute arguments to check theta roles or not in the absence of a predicate. The theory: this issue is analyzed with reference to Chomsky's minimalist's views (1995), Radford's (1988) and Jalabneh (2007, 2011, 2017). The conclusions: The structures are syntactically proved to be [C"s] but not [T"s] whether the complementizer ?an 'that' is overt at spell out or covert at PF; [C"s] as syntactic units do not constitute arguments for any predicate; thus; they do not check theta roles in Arabic syntax. The analysis shows also that whether the complementizer? an 'that' is overt or covert, its syntactic effect is obvious on the morphology of the internal verb. In other words, it is marked with the subjunctive marker [a] at all levels of syntax.

Index Terms—theta roles, spell-out, LF, independent subjunctive, dependent...etc.

I. INTRODUCTION

Subjunctive is a common syntactic phenomenon in languages. Typologically, it is different from language to another in relation to a conjunctive or some other entities. In non - inflectional languages, as English, it is categorized as an unmarked structure that expresses certain attitudes towards something to be said. However, in Arabic syntax, Wright (1984) argued that subjunctive clause occurs either independent clause after ?an 'that' as in [lan yadkhula al-bayta ahadun 'no one (that) shall enter the house'], or as a clause that occurs in the subordinate as in [j?tuka li (?an) ?aqra?a 'I came to thee (that) to read'] (p. 22 and 28, Vol, III). Abdulhamid (1999) claimed that the subjunctive clause occurs either in a simple independent clause or in a complex clause in the subordinate to indicate a dependent act similar to that of the adverbial clause which has a future sense in the subordinate position. Maghalsih (2007) argued that subjunctive, in Arabic, is marked by the conjunctions, namely, ?an 'that', ?an lla / ?alla 'that not', la?an/ lan 'not that', kai / likai (?an) 'to that', kaila / likaila (?an) 'to that not', hatta (?an) 'until that', ?idh?an 'then that' and finally li(?an) 'to that' They initiate either an independent clause as in the specimen (i) [lan ?adriba al-walada 'not that I will hit the boy'] or a clause that occurs in the subordinate position as in the example [?ataitu li (?an) ?al^aba 'I came to play] (p. 65).

The focus of this study is merely on both subjunctive structures that occur as independent and in the subordinate position. However; mandative structures are not involved in this study.

II. PROBLEM OF THE STUDY

The problem of this study is that it is difficult to specify the actual structures of both structures whether they are complementizer phrases [C"] or finite tense phrases [T"]. The other part of the problem is that whether they constitute arguments that get theta roles or not in Arabic syntax.

III. OBJECTIVES AND QUESTIONS OF THE STUDY

There are certain objectives which are to be achieved in this article; thus, the following questions are proposed: 1. What are the actual structures of both phrases in X-bar syntax? 2. Do they form arguments or not and why? 3. Does the complementizer ?an 'that' change the structure from a maximal projection to another in Arabic syntax and how? 4. Does it have the same syntactic significant whether overt or covert at all levels of syntax?

IV. HYPOTHESIS OF THE STUDY

A complementizer X whether overt or covert must head [C"] but not [T"] at all levels of syntax.

V. THEORETICAL VIEWS

Chomsky (1995) argued that semantic characteristics are the semantic selections and the thematic properties of the lexical verb. The argument structure of the verb illustrates the number of arguments it licenses and indicates what semantic role each argument receives. Selectional restrictions specify intrinsic semantic features of the complements and subjects. Thus, a verb with no Θ - role to assign to a complement will not be able to project a complement in the argument structure. However, a verb with obligatory theta roles to assign will have to occur in a configuration with enough arguments to receive Θ - roles. Hence, semantic selectional restrictions are determined by thematic properties. To get a Θ - role, the inherent semantic features of an argument must be compatible with that role. The complementizer phrase [C"], in X-bar syntax, is headed by a complementizer [C] and a specifier; but it must have tense clause [T"] of the matrix verb as a complement. It has the structure of [C" Spec [C T T V"]]]]. A specifier of [Spec, C"] is optional; thus, it is a non - argument position in X-bar syntax. Θ - theory is a module of grammar that accounts for the assignment of Θ - roles to arguments determined by the lexical properties of the head verb. According to X-bar syntax, the lexical verb governs its internal complements in [V] in which Θ - roles are assigned. A determiner phrase [D], prepositional phrase [P"], tense phrase [T"] and complementizer phrase [C"] are Θ - role bearers; while, adjective phrase [A"], adverb phrase [Adv"], prepositions [Ps] and verbs [Vs] are non Θ - role bears in syntax. Arguments must occupy Θ - a positions in the argument structure to bear Θ - roles. They assign Θ - roles such as 'agent', 'patient', 'experiencer', 'goal', 'path', instrument and 'location'. Chomsky (1995) also argued that the distinction between subjunctive phrase [C"] and [T"] is related to the nature of [T], which has the value of [±Tense], where [+Tense] stands for finite [T"] and [- Tense] for infinitival [T"]. Thus, a subjunctive phrase consists of [C" and T"] while tense phrase has only [T"].

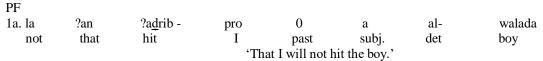
Radford (1988) argued that finite clauses that contain an overt complementizer [C], in fact, must have a finite [I]; thus, a subjunctive clause with [C] must have an overt finite [I]. An assumption given by Radford (p. 307) says: "Any clause which contains C contains a compatible I". Thus, a subjunctive clause requires an overt complementizer and any clause that contains [C] also contains an [I]. It follows that a subjunctive complement clause contains [I] node as complement of [C']. And since [I] constituent does not appear overtly in such structures, the obvious solution to be followed over here is the empty tense theory of [I] that assigns the nominative case at the correct level.

Jalabneh (2007, 2011 and 2017) argued that though Arabic is typologically categorized as VSO at PF, it is dealt with, in this work, as SVO at spell-out and VSO at PF due to a number of reasons. Firstly, all conditions of checking theory are met. Secondly, all conditions of case theory, namely, adjacency parameter and case filter are met. Thirdly, thematic relations are also met for correct semantic interpretation in this approach. Fourthly, V-movement is essential to get grammatical sentences to meet word order of Arabic at PF.

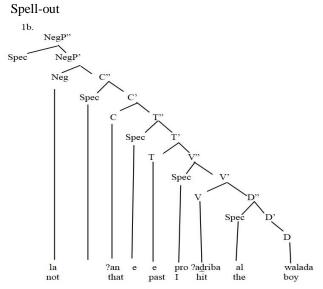
VI. DISCUSSIONS AND RESULTS

A. Independent Subjunctive Phrases in Arabic Syntax

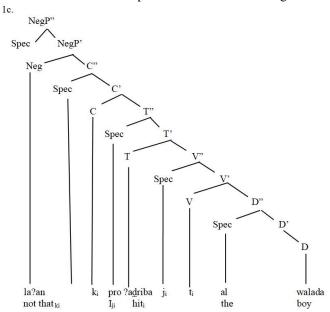
The phrases are visible with the items la?an/lan 'not that' and ?idhan 'then that'; the former consists of the negative polarity item la 'not' and the complementizer ?an 'that'. While, the latter is composed of the adjunct ?idh 'then' and the complementizer ?an 'that'. The analysis starts with la?an/lan that heads a complementizer phrase; it must be overt at spell out and other subsequent levels of syntax as in (1).



(1b) is the spell-out tree diagram representation for (1a).



The sentence (1b) is discussed in terms of two issues, namely, the actual structure of the phrase [C"] and whether it forms an argument to get a theta role or not and why. It is evident that the complementizer ?an 'that' heads [C"] [?an e e pro ?adriba al-walada 'that past I will hit the boy'] but not the [T"][e e ?adriba pro al-walada 'past I hit the boy']. It is obvious that this kind of subjunctive phrase is unique in Arabic syntax, and it is different from other subjunctive structures in the sense that it occurs as an independent phrase. In it, neither the negative item la 'not' nor the complementizer ?an 'that' can be deleted at any level of syntax in relation to (1a) as in [*?an pro ?adriba al-walada 'that I will hit the boy'] and [* la pro ?adriba al-walada 'not I will hit the boy'] respectively. As far as theta theory is concerned, [C"], in (1b), does not constitute an argument to be assigned a theta role because it is neither selected by a verb nor occupied a theta position. However, as a separate independent phrase that involves a predicate and arguments in syntax, pro in [Spec, T"] position is assigned the theta role of agent as it wells the action by [V"] [pro ?adriba al-walada 'I hit the boy']; likewise, the argument [D"] al-walada 'the boy' that occurs in the argument object position of [V'] is assigned the theta role of patient as it undergoes the act of the causative verb ?adriba in [V]. To get the PF (1a), the verb ?adriba 'hit' must move from [V, V'] to [T, T'] to check the empty past marker. The category pro 'I' must move to [Spec, T"] to get the nominative case by the empty tense marker in the tree diagram; then, it is dropped at interface before PF. The complementizer ?an 'that' merges with la 'not' at [Spec, C"] at PF as it is obvious in (1c).



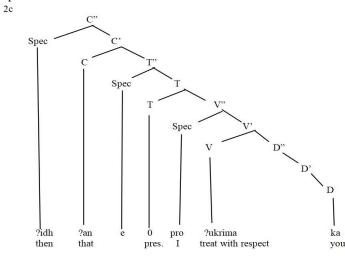
However, ?idhan 'then that' is composed of the adjunct ?idh 'then' and the complementizer ?an 'that" which can head the independent phrase [C"] in Arabic syntax as in (2).

PF						
2a. ?ana	?aatii-	ka	ghadan.			
I	come will	you	tomorrow			
2b. ?idh-	?an	[?ukrim-	pro	0 -	a	ka].

then that treat with respect I pres subj. you (cf., Wright, p. 33,1984, Vol, ii,)

'I will come to you tomorrow.' 'That I will treat you with respect.'

(2c) is the spell out tree diagram representation of (2b). Spell-out



In (2c), ?an 'that' occupies the head position [C, C'] of [C"] [?an e 0 pro ?ukrimaka 'that pres. I treat with respect you' but not the head position [T, T'] of [T"] [e 0 pro ?ukrimuka 'pres. I treat with respect you' because [T] is occupied by the empty category [e] at spell-out. [C"] does not form an argument of any verb in the super phrase; thus, it cannot check a theta role. As a separate phrase, it has the verb ?ukrima 'treat' which selects pro 'I' as the subject and ka 'you' as the object argument. The former has the theta role of agent while the latter has the theta role of goal. To get PF (2b), the verb moves to [T, T'] to check zero tense marker to head the sentence at PF. The category pro 'I' must move to [Spec, T"] to get the nominative case by the empty tense marker in the tree diagram and then to be dropped at interface before PF. The complementizer ?an 'that' merges with ?idh 'then' at [Spec, C"] at PF similar to (1c) above.

In short, the complementizer ?an in [C, C'], in (1-2), heads [C"] but not [T"]; it cannot be deleted at all levels of syntax.

B. Subjunctive Subordinate Phrases in Arabic Syntax

These types of phrases are headed by ?anla / ?alla 'that not', kai / likai (?an) 'in order to that', $\underline{h}atta (?an)$ 'until that', and finally li (?an)'to that' that occur as dependent subordinate ones. The sentence (3) illustrates the point.

PF

3a. ji?tu-?an ka la dribpro zaidan] came I Zaid you that not ^a, sg, masc. hit you subj. (cf., Abdullhamid, p. 8, 1999, iv.)

'I came to you that you do not hit Zaid'

(3b) is spell-out tree diagram representation for (3a).

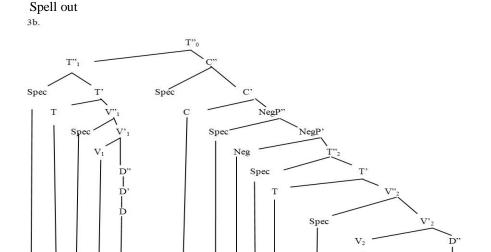
0

ji? ka

came

tu

?an



la.

not

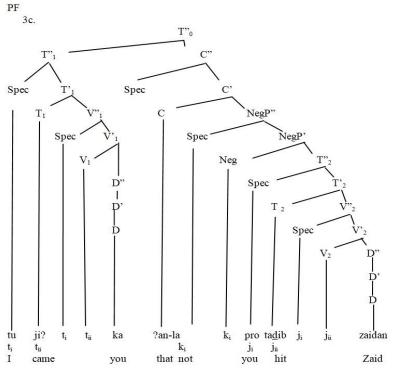
(3b) shows that the complementizer ?an 'that' in [C, C'] heads [C"] but not [T"]; as [C"] is not projected by any verb, it does not constitute an argument. It is a clear example of a subjunctive structure that occurs in the subordinate position because [C"] is projected from [T"0] but not from the matrix verb ji? 'came in [V1, V1]. In [C"], ?an 'that' occurs as the head of the subjunctive clause [?an la e e pro tadriba zaidan 'that not pres. you hit Zaid' but not the head of [T"] [e e pro tadriba zaidan 'pres. you hit Zaid'. As a dependent phrase, the verb tadriba 'hit' selects pro as the subject 'I' and zaidan 'Zaid' as the object argument. The former checks the theta role of agent but the latter the theta role of patient. It is evident that ?an cannot be deleted in relation to (2a) or else the sentence is incorrect in Arabic as in [*ji?tuka -0- la tadrib zaidan 'I came to you not hit Zaid']. However, the negative polarity item la 'not' can be deleted without causing any fault to the grammaticality of the structure as in [ji?tuka ?an tadriba zaidan 'I came to you that you hit Zaid']. To get (3a), we may look at (3c).

pro

pres

tadriba

zaidan



(3c) illustrates that, in $[T''_1]$, the attached pronoun tu 'I' must move from caseless position of [Spec, V''_1] to case position of [Spec, T''_1] to get the nominative case by empty marker tense as it is a finite independent clause (cf., Radford, 1988). The verb ji? 'came' must move to $[T_1, T'_1]$ to check zero tense marker and in a cyclic movement it has to move higher to [Spec, C"] in the same clause in syntax to initiate the sentence at LF (the node C" is not visible in T_1

due to lack of space). However, in [C"], the empty category *pro* 'you' must move from the caseless position of [Spec, $V"_2$] to the case position of [Spec, $T"_2$] to get the nominative case by the empty tense governor [e] and then to be dropped at interface as Arabic is a pro- drop language. The verb $ta\underline{d}riba$ 'hit' must move to [T₂, T'₂] to check empty tense and remains there at LF (cf., Jalabneh, 2011 for V-movement).

Similar complementizers that initiate [C"] in the subordinate positions are: $\underline{h}atta$ (?an) 'until that', kai / or likai (?an) 'in order to that' and finally li (?an) 'to that'. The following examples (4-6) illustrate their occurrences following the formula: [$_{\text{C"}}$ Spec [$_{\text{C'}}$ Spec [$_{\text{T'}}$ Spec [$_{\text{T''}}$ Spec [$_{\text{T''$

```
?adkhul-
4b. sir-
                  tu
                              hatta
                                                                           al-
                                                                                      garyata].
                                                               subj.
  walked
                  I
                              until
                                             enter into I
                                                                           det
                                                                                      village
                                          'I walked until I entered into the village'
Spell out
4b. sir-
                tu [c" Spec [c' hatta
                                                                   ?adkhul-
                                                                                                        al-
                                                                                                                  qaryata].
                                                        ?an [<sub>T"2</sub>
                                                                                   pro-
                                    until
  walked
                                                                                              subj.
                                                                                                                   village
                                                        that
                                                                    enter into
                                                                                    I
                                                                                                        det
                                        'I walked until that I entered into the village'
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The sentence (4a) illustrates that the complementizer ?an 'that' is covert at PF. However, in (4b), it is overt and the structure is [C"] but not [T"]. Thus, the structure is [C"] whether it is overt or covert because it is a part of numeration in the lexicon. The phrase cannot bear a theta role because it occurs in the dependent clause [?an ?adkhul- pro-a al-qaryata 'that enter into I-subj. the village'] headed by the adverbial adjunct item hatta 'until'; thus, the verb sir 'walked' occurs in the independent clause [sir-tu 'I walked']. Therefore, it is an intransitive verb and is unable to select a complement as an argument with a theta role.

The sentence (5a) illustrates that the complementizer ?an 'that' is covert at PF. However, in (5b), it is overt and the structure is [C"] but not [T"]. Thus, the structure is [C"] whether it is overt or covert because it is a part of numeration in the lexicon. The phrase cannot bear a theta role because it occurs in the dependent clause [?an na-drus-a 'that we study – subj.'] headed by the adverbial adjunct item kai 'to'; thus, the verb ?atai 'came' occurs in the independent clause [?atai- na 'we came']. Therefore, it is an intransitive verb and is unable to select a complement as an argument with a theta role.

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PF
6a. jalas-
                     na-
                                       li
                                                                      ?akul-
                                                                                          a.
    sat
                     we
                                        to
                                                                       eat
                                                                                          subj.
                                                        'I invited you to eat'
Spell out
6b. jalas-
                            [C" Spec [C' li C
                                                      ?an [ T"<sub>2</sub>
                                                                                       ?akul-
                    na-
                                                                                                         a.
                                                                                                        subj.
    sat
                                          to
                                                       that
                                                                          we
                                                                                       eat
                    we
                                                     'I invited you to that eat'
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The sentence (6a) illustrates that the complementizer ?an 'that' is covert at PF. However, in (6b), it is overt and the structure is [C"] but not [T"]. Thus, the structure is [C"] whether it is overt or covert because it is posited in the lexicon. The phrase cannot check a theta role because it occurs in the dependent clause [?an na-?akul-a 'that we eat subj.'] headed by the adverbial adjunct item li 'to'; thus, the verb jalas 'sat' occurs in the independent clause [jalas-na 'sat we.'] and it is an intransitive and cannot project a complement.

In short, the examples (4-6) prove that the complementizer ?an 'that is a part of numeration in the lexicon at spell out; thus, it initiates [C"] but not [T"]. It is significant to notice that the complementizer has a direct syntactic effect whether it is overt or covert; it visible on the morphological inflection of the embedded verbs in the subjunctive as in (4a, 5a and 6a).

To sum up: the instances (1-6) prove that the actual structure of the independent and subordinate subjunctive clauses is [C"] but not [T"]. [C"] does not form an argument; thus, no theta role is checked. The study confirms that as the occurrence of the complementizer ?an 'that' is a part of numeration in the lexicon in Arabic syntax, the structure is always [C"] and it can never be [T"]. These results are clear answers to questions (1 and 2). This issue is confirmed in the second result of the analysis which shows that whether the complementizer ?an 'that' is overt or covert, its syntactic effect is obvious on the morphology of the internal verb. In other words, it is marked with the subjunctive marker [a]. Thus, the questions (3 and 4) are answered correctly. Finally, the study proves that the hypothesis: "each

complementizer X whether overt or covert must head [C"] but not [T"] at all levels of syntax" is proved to be correct in such structures in Arabic syntax.

VII. CONCLUSIONS

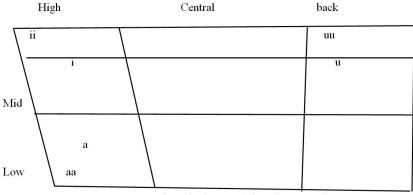
This study proved that the actual structure of the independent and subordinate subjunctive phrases, in (1 -6), is [C"] but not [T"] in X-bar hierarchy. This [C"] cannot constitute an argument; thus, it does not bear a theta role. This syntactic fact is obvious in the presence of the complementizer ?an 'that' which theoretically changes the structure from [T"] to [C"] in X- bar hierarchy. It is because its compulsory occurrence in the lexicon as a part of numeration confirmed by the overt occurrences of morphological realizations of subjunctive at the end of embedded verbs in the sentences. The study proved also that whether the complementizer is compulsory overt at spell out and PF as in (1 - 3) or compulsory overt at spell out and optionally at PF as in (4-6), its syntactic effect remains the same at all levels of syntax. The theoretical perspectives followed in this work are needed to discuss such phrases in a number of ways: (i) the theory of X-bar syntax made the analysis simple in the sense that the complementizer ?an 'that' of subjunctive phrases head [C"] but not [T"] in syntax, (ii) theta theory interacts in syntax to decide that not every [C"] is an argument to check a theta role. It also helps us decide that [C"] can project [T"] as a complement but [T"] can never project [C"] as a complement in such types of phrases, (iii) the theory of empty tense is helpful because the verb in such phrases do not overt have tense markers at all though they are finite ones; thus, the mechanism of empty [e] in [T, T'] is to check the nominative case by the subject to meet both case - filter and adjacency parameter and (iv) treatment of Modern Standard Arabic as SVO at spell-out is significant in the sense that all requirements of checking theory are met in a very optimal manner. All arguments in [C"] have checked their respective theta roles as per X-bar syntax. V-movement is essential as the verb in the course of derivation checks necessary features in the course of derivation in a cyclic movement before it lands at [Spec, C"] to initiate the phrases in this study.

APPENDIX I. TRANSLITERATION SYMBOLS OF ARABIC CONSONANTS PHONEMES

Arabic	Transliteration	Arabic	Transliteration	
í	'?	ض	<u>d</u>	
ų	b	ط	<u>t</u>	
ت	t	ظ	<u>Z</u>	
ث	th	ع	c	
*	j	غ	gh	
ح	<u></u>	ف	f	
خ	kh	ق	q	
۵	d	ك	k	
3	dh	J	1	
ر	r	م	m	
ز	Z	ن	n	
س	sh	و	W	
ص	ș / <u>s</u>	ي	у	

Notice: the researcher has a reference to the transliteration symbols while writing the Arabic phonemic segments in the text. (cf., Oxford Journal for Islamic Studies)

APPENDIX II. TRANSLITERATION SYMBOLS OF ARABIC VOWELS PHONEMES



(cf., Oxford Journal for Islamic Studies)

APPENDIX III. ABBREVIATIONS

Adv": Adverb Phrase

Adv: Adverb

Agrs' / Agrs: Agreement subject Agrs"P: Agreement phrase

Agrs: Agreement C: complementizer

CP/C": Complementizer phrase

D": Noun phrase
Det: Determiner
D": Determiner phrase

e : Empty

I": Inflectional phrase

I: Inflection
LF: Logical form
Masc.: Masculine

Neg''P: Negative phrase SVO: Subject, Verb, Object,

Sg.: Singular Spec: Specifier subj: Subjunctive T": tense phrase

T: tense

V": Verb phrase

V: Verb

VSO: verb- subject- object

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