Complementizers, Components and Word - Order: A Minimalist Study of Subordinate Subjunctive Features in Arabic Syntax

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Abstract

Arabic is dealt with in this article as SVO at spell-out and VSO at the logical form (LF). Thus, the objective of this article is to examine the actual components of complementizers and check their syntactic effect on word order of Arabic in subordinate subjunctive constructions at both word orders. To get VSO at LF, the verb is unable to move higher than the tense node [T"] whose specifier position is occupied by the subject and also the head position of the complementizer phrase [C"] is filled with a complementizer. In such a structure, the word order of Arabic subjunctive is disturbed and becomes as : a complementizer, NP- subject and V which is, in fact, ungrammatical at all levels of syntax. To get good results, the data are analyzed with reference to Chomsky's (1981, 1986a, 1986b and 1995) Minimalist Views. The study illustrates that "adjunction" is an essential mechanism to project a non argument maximal projection in the syntactic hierarchy to let the internal verb land in a correct position in VSO order at LF. The study concludes that, in SVO, universal features including (i) the nominative case and (ii) theta marking are properly checked in order not to violate principles of syntax. Other significant results indicate that components of complementizers give different syntactic functions before being used as complementizers in Arabic syntax.

Keywords: Adjunction, Spell-out, LF, Features, Subjunctive, V-movement

Introduction

The subordinate subjunctive mood is a kind of structure which is specific to Arabic syntax; it semantically expresses the speakers' attitudes towards what is going to be said in a simple statement form. In other words, it indicates an act which is dependent upon that mentioned in the previous clause and future to it in point of time (c.f. Maghalsih 2007 for such notion). Syntactically, the structure is headed by certain complementizers and are followed by an embedded verb which is in the imperfective form and marked by the inflection [a] The complementizers

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to be discussed in this article are only : (i) *'idhan* ' then, since and behold + that', (ii) *kai* ' in order to + that', (iii) *hatta* 'until + that', and (iv) *li* 'let / and to + that'. As far as the minimalist views are concerned, Chomsky (1981, 1986a, 1986b and 1995) argued that if a complementizer initiates a sentence, it raises the structure in the syntactic hierarchy from tense phrase [T"] into the level of complementizer phrase [C"]. The distinction between [T"] and [C"] in relation to the nature of the node [T"] is the syntactic value [± Tense], where [+Tense] stands for finite [T"] and [- Tense] for infinitival [T"]. Thus, subjunctive phrase in this situation consists of [C" and T"] while tense phrase has only [T"]. [C"], in X-bar syntax, is headed by a complementizer [C] and a specifier; but, it must have [T"] as a complement. A clause is typically has the structure $[_{c"}$ Spec $[_{c'}$ C $[_{T"}$ Spec $[_{T'}$ T V"]]]]. A specifier of [Spec, C"] is optional; thus, it is a non argument position in terms of theta marking. The Extended Projection Principle (EPP) states that [Spec, T"] is obligatory position. [Spec] position is the subject of [T"], and it is a theta position. The mechanism of 'adjunction" is always zero-level projection X^0_{max} and never occurs internally to one of its constituents (c.f. 1995, 359-367). Theta theory accounts for the assignment of theta roles to arguments determined by the lexical verb either to [C"], [D"], [P"] or (T"). Arguments have to occupy theta position to be assigned theta roles such as agent, patient, experiencer, location ..etc to give grammatical sentences at all levels of syntax. As far as relevant Minimalist studies in Arabic syntax are concerned, Jalabneh (1992 and 2007) suggested that in order to implement all principles and parameters of syntax in a proper manner, Arabic is to be treated SVO at spell-out but VSO at LF. In the former word order, a number of syntactic and semantic requirements are to be met. First, all conditions of government theory, namely, c- command and m-command relations are met in this style. Second, all conditions of case theory, namely, adjacency parameter and case filter are also met. In other words, the nominative case is to be checked by [T] in [Spec, T"]. Third, the thematic relations, namely, theta criterion, theta chain and checking of theta roles are to be fulfilled. Finally, V-movement is a must in Arabic syntax to get grammatical sentences fulfilling both c-selection and s-selection at all levels of syntax and to meet word order of Arabic at LF and get VSO.

In short, the above minimalist views will be followed to explicate the problems related to achieve correct word order and correct interpretation to subordinate subjunctive constructions at LF in Arabic syntax.

Problem of the Study

The occurrence of the complementizers as the head of a subordinate subjunctive structures cause a problem to get VSO order at LF. This is because the verb which checks the [T, T'] position and lands there is unable to move higher than this node. Thus, the word order is a complementizer in [C, C'], subject in [Spec, T"] and verb in [T. T'] position. The result is ungrammatical sentence because of both syntactic and semantic reasons. Due to such a serious problem in Arabic syntax, we opt for the mechanisms of adjunction and V-movement to solve the issues.

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. Why does a complementizer disturb the word- order of subordinate subjunctive structures in Arabic syntax at LF?

2. How do the mechanisms of adjunction and V-movement solve this problem and produce grammatical sentences without disturbing all principles of syntax?

Discussions and Results

Before we start examining the syntactic features and the nature of the syntactic effects of complementizers on word order in Arabic syntax from a minimalist point of view, we have to examine the actual components of such complementizers.

The Components of Complementizers: Structure and Function

There are a number of complementizers which are used particularly in subordinate structures in Arabic syntax; each one of them is composed from different parts and each part has a different syntactic function. They are listed as follows: (i) *'idhan* 'when, since and behold + that ', (ii) *'anla* 'that + not', (iii) *likai / kai + ('an)* 'in order to + that', (vi) *hatta ('an)* 'until + that', and (v) *li ('an)* 'let and to + that'. It is evident that in each compound, the complementizer *'an* 'that' is a must to appear. For instance, (i) is composed of the adverbial linker of time *'idh* 'when' and *'an* 'that', (ii) consists of the negative polarity item *la* 'not' and *'an* 'that' and (iii) is composed of the adverbial linker of purpose *likai / kai* 'in order to' and *'an* 'that', (iv) is composed of the adverbial linker of time *hatta* and *'an* 'that' and (v) consists of either the entity of suggestion *li* 'let' or the preposition *li* 'to' and *'an* 'that'. Each component gives a different syntactic function before being added to its partner and used as complementizers in subjunctive sentences in Arabic syntax. If the entities are left without being discussed, they may cause a confusion to non - native speakers of Arabic. For instance, (i) *'idhan* 'then, since and behold + that' is basically a compound word which is composed of *'idh* and *'an*. The first conjoint is the common separable adverbial adjunct *'idh* 'when, since and behold', which can occur before a verb in the past as in the adverbial clause (1), and the second is the common complementizer *'an* 'that', which is discussed in the sentences (2-4).

1a. [$_{T''}$ khif -tu [$_{adv''}$ [$_{adv'}$ adv 'idh [$_{T'2}$ jā'a zaydun yabki]]]]].
      scared I   when   came   Zaid   crying
            ' I got scared when Zaid came crying'.

In (1a), the item *'idh* 'when' occupies the [Adv, Adv'] position. We cannot assume that *'idh* 'when' initiates a complementizer phrase in this sentence. Theory wise, it is significant to notice that the position of [C, C'] is either a result of a moved wh- question from a sentence internal position occupied by the time adjunct as is the situation in English "I came on Friday", [C" [Spec when did you come?]]. Or wh-movement as in "I do know [$_{c''}$ [Spec who$_i$ [$_{T'}$ you saw t$_i$]]]. Or wh-in -situ as in [c" [Spec who [$_{c'}$ [$_c$ are [$_{T'}$ you?]]]]] in syntax.

However, in (1a), *'idh* 'when' is not a complementizer; it is simply an adjunct of time as that of 'when' in English which also heads an adjunct phrase of time. This adverbial adjunct of Arabic is different from that of English in the sense that it cannot be exchanged with the main clause as in (1b).

1b. * [adv [adv adv 'idh [T''1 jā'a   zaydun   yabki   [T''2   khif   -tu]]]].

              when   Zaid   came crying   scared

I

         'When Zaid came crying, I got scared.

However, this kind of subordinate clause in English can be exchanged as in [When Zaid came crying, I got scared]. In short, Arabic has its own specific usage of adverbial adjuncts insofar as exchange of position is concerned. If *'idh* is used in the sense of 'since', we get (1c).

1c. [T''1 khif   -tu   [adv [adv adv 'idh [T''2 jā'a   zaydun   yabki]]]].

     scared I   since   came   Zaid   crying

         ' I got scared since Zaid came crying'.

In (1c). the adverbial adjunct *'idh* 'since' occupies the head position [Adv, Adv'] of the adverbial phrase [*jā'a zaydun yabki* 'Zaid came crying'] . It is evident that this projection occurs higher than [T''] in X-bar syntax in this construction. As the adverbial clause is not exchanged with the main clause in (1a), (1c) is not exchanged, either. However, *'idh* can be used in the sense of 'behold' after the adverbial adjunct which is initiated by *bainama* 'while' as in (2a). This clause cannot be preposed as in (2b).

2a. [T''1 bainama   zaydun   qā'imun   [adv [adv adv 'idh   [T''2   ra'a 'amran]]]].

       while   Zaid   was standing   behold   saw
Amr

        'While Zaid was standing, behold, he saw Amr'

                                (c.f. Wright, 1984, III, p. 283)

2b.* [adv [adv adv 'idh   [T''2   ra'a   'amran   [T''1 bainama zaydun qā'imun]]]].

         behold   saw   Amr   while   Zaid   was standing

        'Behold, he saw Amr while Zaid was standing.'

However, the second part of the entity *'an* 'that' has three different syntactic functions in this form as in (3-5).

3. [T''1 'arad   - Ø   -tu   [T''2 Spec [T' T 'an 'a-   dhhab   -   a]].

      want   past   I   to   I[st],   go   acc.

              'I wanted to go'

4. aşrr - a zaydun [c" [c· C 'an ya- dhhab - a]].

insist past Zaid that 3rd, sg,masc go subj.

'Zaid insisted that he go'

5. qāl -a zaydun [c" [c" C 'an °amrun najaḥ - a]].

say past Zaid that Amr pass past

'Zaid said that Amr had passed'

In (3), the entity 'an 'to' is the head of [T"₂] which is represented by the infinitival clause 'a-dhhab 'I go' in which the marker [a] is attached to the verb dhhab-a 'go'. In (4), 'an 'that' functions as a complementizer and occupies the head of [C"]; it initiates the mandative subjunctive clause 'an yadhhaba 'that he go' to which the marker [a] is attached to the verb dhhab-a. In (5), the complementizer 'an 'that' occupies the head position of [C"]; it is represented by the declarative reporting clause °amrun najaḥa 'Amr passed'. The difference between (4) and (5) is signaled by the choice of the complementizer introducing the clause, 'an 'that' vs 'an 'that'. In other words, the complementizer determines the type of the clause it heads in Arabic. It is a non - lexical item that heads the phrase [C"]. Complementizers do not constitute an open class in Arabic; thus, the complementizer 'an 'that', in (4), introduces a mandative subordinate subjunctive clause and 'an 'that', in (5), introduces a declarative reporting subordinate clause. In short, the sentences (1-5) prove that the actual components of the complementizer 'idhan 'then, since and behold + that' are basically two separate words that have different syntactic functions in Arabic syntax. The new form occupies the position of [C, C']; we keep in mind the semantic components of idh 'then since and behold' as time adjuncts plus the complementizer 'an as a non lexical category for this work.

The compound 'anla 'that + not' is also composed of two different entities; 'an 'that' and the negative item la 'not'. The former has already been discussed in the sentences (3-5) while the latter can negate a nominal sentence as in (6) and a verbal jussive sentence in (7).

6. [Neg"P [Neg· Neg la [T"ι shajara fi al- manzili]]].

no tress in det house

'No trees at home'

7. [Neg"P [Neg· Neg la [T"ι ta - dhhab - 0 ba°īdan]]].

not 1st, sg go juss far a way

Do not go far away'

In (6), the negative element la 'no' heads the nominal sentence shajara fi al-manzili ' tress at home' while in (7), the same entity 'not' initiates the verbal sentence ta dhhab ba°īdan 'go far away'.

The components *likai / kai ('an)* 'to + that' has the infinitive indicator and the complementizer; they have different syntactic functions in Arabic syntax. The preposition *likai / or kai* 'to' indicates a clause of purpose in Arabic syntax as in (8).

8. [T 1 ghādar-   tu   mubakiran   [T 2 [T T kai   'arkaba   al-qiṭār]]].

　　　　left   I   early   to   catch   det
train

　　　　　　　'I left early to catch the train.'

In (8), *kai* 'to' initiates the clause of purpose *'arkaba al-qiṭār* 'catch the train'. The complementizer *('an)* is discussed in (3-5).

The components *ḥatta('an)* 'until + that' also have different functions. The former expresses the result of the activity described in the matrix clause as in (9), and it is used as a preposition as in (10).

9. [T 1 dallaka-   t   rijla - ha] [adv [adv adv ḥatta [T 2 tawaqafa   al-'alamu]]].

　　　　massaged fem leg   her   until   stopped   det
pain

　　　　　　　'She massaged her leg until it stopped hurting'

10. [T 1 mashai-   tu   min   al-   shrūqi   [P [P P ḥatta   al-ghrūbi

　　　　walked   I   from   det   sunrise   until   det
sunset

　　　　　　　'I walked from the sunrise until the sunset.'

In (9), the time adjunct *ḥatta* 'until' initiates the dependent time clause *tawaqafa al-'alamu* ' it stopped hurting'; however the same form of *ḥatta*, in (10), shows an adjunct of time in the prepositional phrase *ḥatta al-ghrūbi* ' until the sunset'.

Each of the components *li ('an)* ' let and to + that' has different syntactic functions in Arabic syntax. For instance, the complementizer *('an)* is discussed in (3-5); however, the component *li*, in (11), *li* 'let' initiates the clause of suggestion *li-yaṭīb qalbuka* 'your heart be at ease', in (12), *li* 'to' initiates the prepositional phrase *li hindin* 'to Hind' and, in (13), *li* 'to' heads the verbal clause of purpose *li-yaṭūl al-khilāfa* 'to prolong the dispute'.

11. [T 1 li   yaṭīb   qalbu-   ka].
　　　　 let   ease   heart   your
　　　　　　　'Let your heart be at ease.'

12. [T 1 'aʿta   zaydun   al-   qalam   [P [P P li   hindin]]].
　　　　 give he   Zaid   det   pencil   to   Hind
　　　　　　　'Zaid gave the pencil to Hind.'

13. [T 1 ta- jāhal-   tu   al- 'ishārata [T 2 [T T li   'uṭīla   al-khilāfa]]].
　　　　 I[st], sg ignored I   det remark   to   prolong   det
dispute
　　　　　　　'I ignored the remark to prolong the dispute.'

In short, the sentences (6-13) shows that the entities are used in different syntactic functions rather being used as complementizers in Arabic syntax as they will be discussed in this article. However, (i) *'idhan* 'then that', (ii)*'anla* 'that not' ', (iii) *kai / likai ('an)* ' in order to that', (iv) *ḥatta ('an)* 'until that', and (v) *li ('an)* ' to that' are going to be discussed now as complementizers in the subsequent section (B); they initiate merely subjunctive dependent clauses in the subordinate position. The study focuses on how they become a problem for word-order at LF as they occupy the highest node [C, C'] in these kinds of structures at all levels; thus, they do not let the verb land in the same maximal projection of [C"]. In this case, we opt for the minimalist mechanisms of adjunction and V- movement.

A Minimalist Study of Subjunctive Structures in Arabic Syntax: Checking Features

Chomsky (1986b) proposed that structures established at D- structure must be preserved at S-structure in a mechanism called structure preserving principle. Thus, a syntactic structure which is visible at D-structure must be present at S-structure. For instance, a position is required by the projection principle at D-structure will be also be present at S-structure. In such a situation, a position projected as a certain category at D-structure cannot change its category at S-structure i.e. [NP] position remains [NP] position, I remains I, V remains V ...etc. The structure preserving principle has also consequences for movement of all types. A constraint imposed on movement is that a phrasal projection must move to another a position labeled as a phrasal projection. A [VP] must not move into a position dominated by a lexical category [NP] or intermediate phrasal category [N']. A movement has to respect syntactic categories. For example, [NP] can move into NP-position without a problem but it will not be able to move to a position labeled [AP]. Provided all other principles of grammar are respected, an [NP] is also allowed to move to positions which are not specified for a syntactic category as that of wh-movement. The structure preserving principle does not prevent a moved entity which is given a new position at S-structure i.e. a position which is not exist at D-structure as long as the new position created respects the principle of phrase structure. Such a move would not violate the principle that structure must be preserved. This principle leads us in this analysis to discuss the notion of "adjunction" as a principle of syntax that allows us to generate new structure for V at S-structure in syntax.

In this section we shall discuss the proposal that says: V-movement creates a new position at S-structure as in (14).

14.
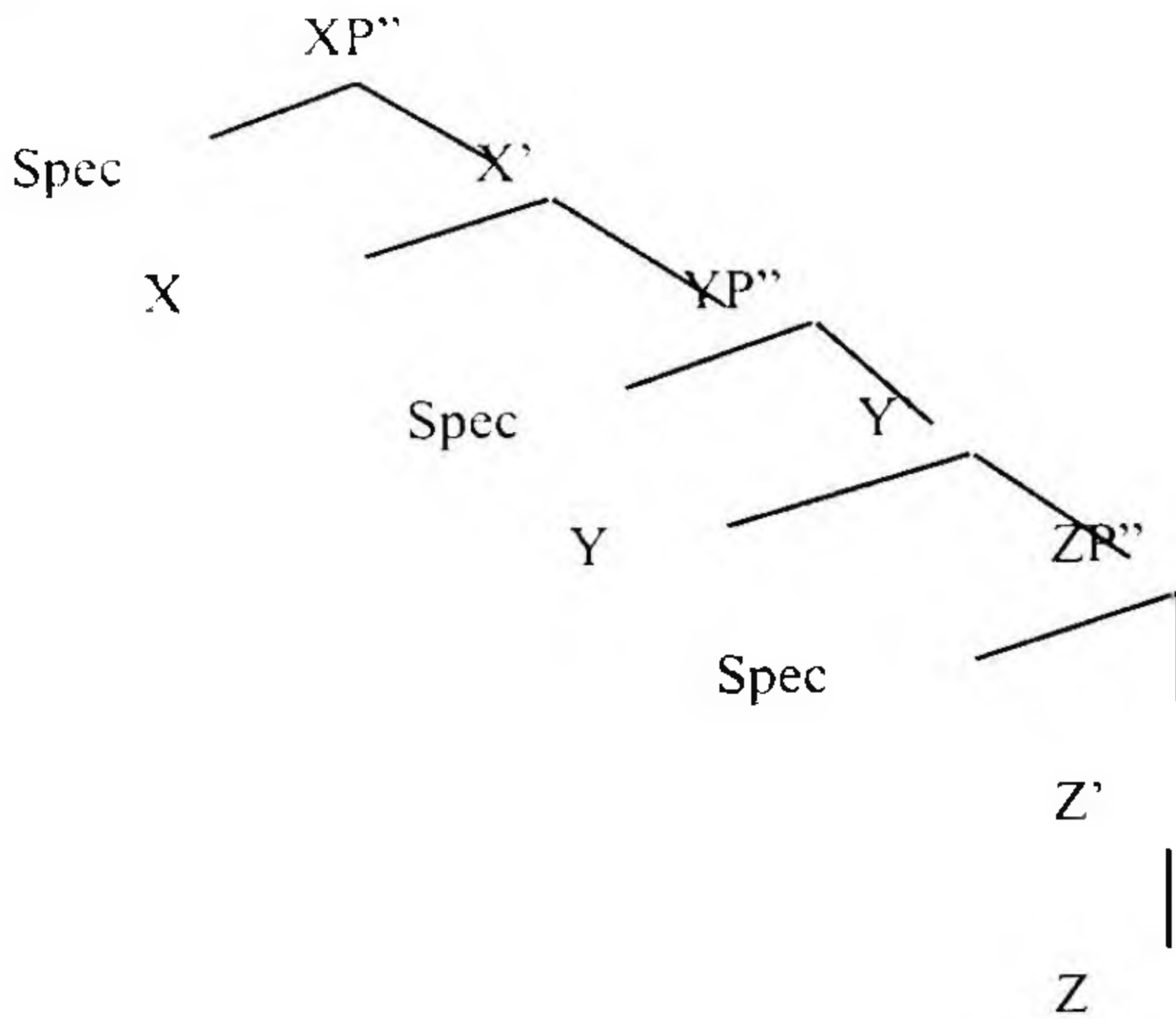
In (14), [XP"] functions as the complementizer phrase, [YP"] functions as the tense phrase and [ZP"] functions as the verb phrase. The lexical category that is going to move is the verb [Z] out of [ZP"]; it has to move to [Y, Y'] to check tense. It cannot go higher because [X, X'] position is occupied by a complementizer at all levels of syntax. This means that we must create a new position for [Z] higher than [YP"]. Maintaining principles of grammar, the moved element must c-command its traces. Suppose [Z] moves somewhere in the vicinity of the topmost node of [YP"], we need to create a node for it but in doing so we must respect the format of X-bar syntax for phrase structure. (15) would be the best option for V- movement to be applied in these structures in Arabic syntax.

15.

XP"$_2$
Spec
X
X'$_2$
XP"$_1$
Spec
X'$_1$
X
YP"
Spec
Y'
Y
ZP"
Spec
Z'
Z
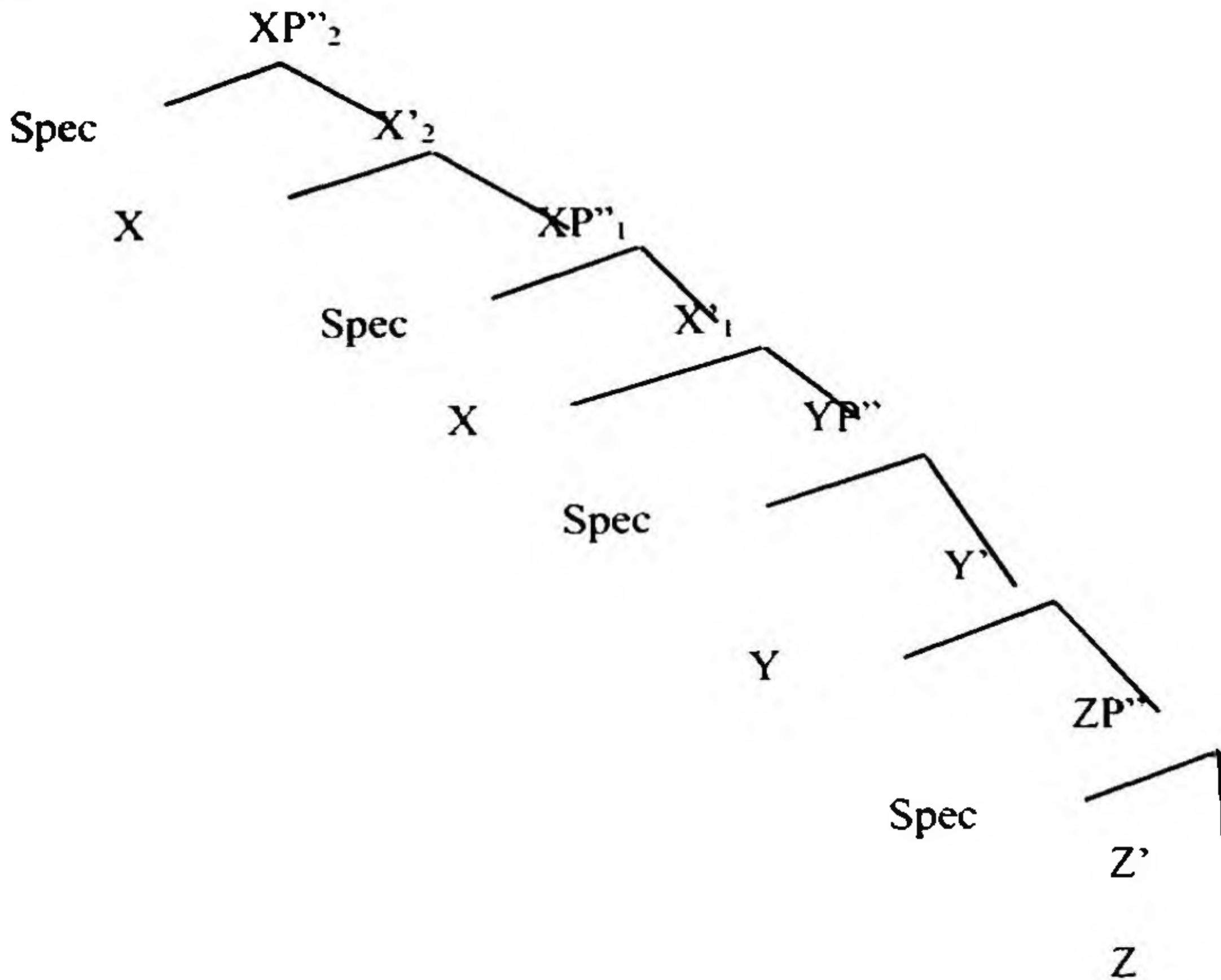
In (15), a new node [XP"$_1$], which is created to dominate the original [YP"]. The moved element is attached to [X, XP"$_1$] after checking [T] in [Y, Y'] position. This operation is known in syntax "adjunction". This syntactic mechanism respects our phrase structure theory: the new constituent [XP"$_1$] is created by adjunction has a binary branching ...etc. Let us check more carefully the relation between [XP"s] and [ZP"] (from which the verb [Z] moves). There are two nodes i.e. [XP"$_1$] and [XP"$_2$]; [XP"$_2$] is the original maximal projection. It is syntactically called the minimal maximal projection. [XP"$_2$] dominates the maximal projection [XP"$_1$] which in turn dominates [YP"] in which [ZP"] is adjoined. [YP"] is directly dominated by [XP"$_1$] but indirectly by [XP"$_2$]. This relation leads us to say [YP"] is completely inside the projection of [X] in general. [YP"] is included in the projection of [XP"$_1$]. [ZP"] is partly inside the projection of [XP"$_1$] because of [YP"]; in other words, it is not fully part of the projection [X, X'$_1$]]. In such situation, Chomsky (1986b, p. 7) proposed a supported formulation to solve this problem called "dominance" as in (16).

16. Dominance
A is dominated by B only if is dominated by every segment of B.
A is [ZP"] and B is the maximal projections of [XP"$_1$]. In principle, in (16) this maximal projection dominates [YP"] and whatever under it because of c-command relation; as [ZP"] is a part of [YP"], it is dominated by [X, X'$_1$]; thus, we prove that [ZP"] is included in [XP"$_1$] and suitable for adjunction in this

position to meet word-order of Arabic syntax at S- structure and LF. Adjunction is very much needed in this work to obtain the VSO order for the grammaticality and correct interpretation of the sentence. This mechanism of adjunction does not violate the restriction imposed by Chomsky (1986b); the restriction is that phrases can only be adjoined to maximal projections and that adjunction can only be to non-argument and thus; [V', V] is a non argument. In it, the position of [X, X'₁] is meant for [V] to land without disturbing other constituents, namely, the subject in [Y, Y'], and the complementizer in [X, X'₂].

Let us apply this theory to (18), in which the complementizer '*idhan* 'then that' is used.

LF
18a.[$_{T1}$ 'ana ātī - ka ghadan. [$_{C'}$ [$_C$ C 'idhan [$_{T2}$ 'ukrim-   a-ka]]]].
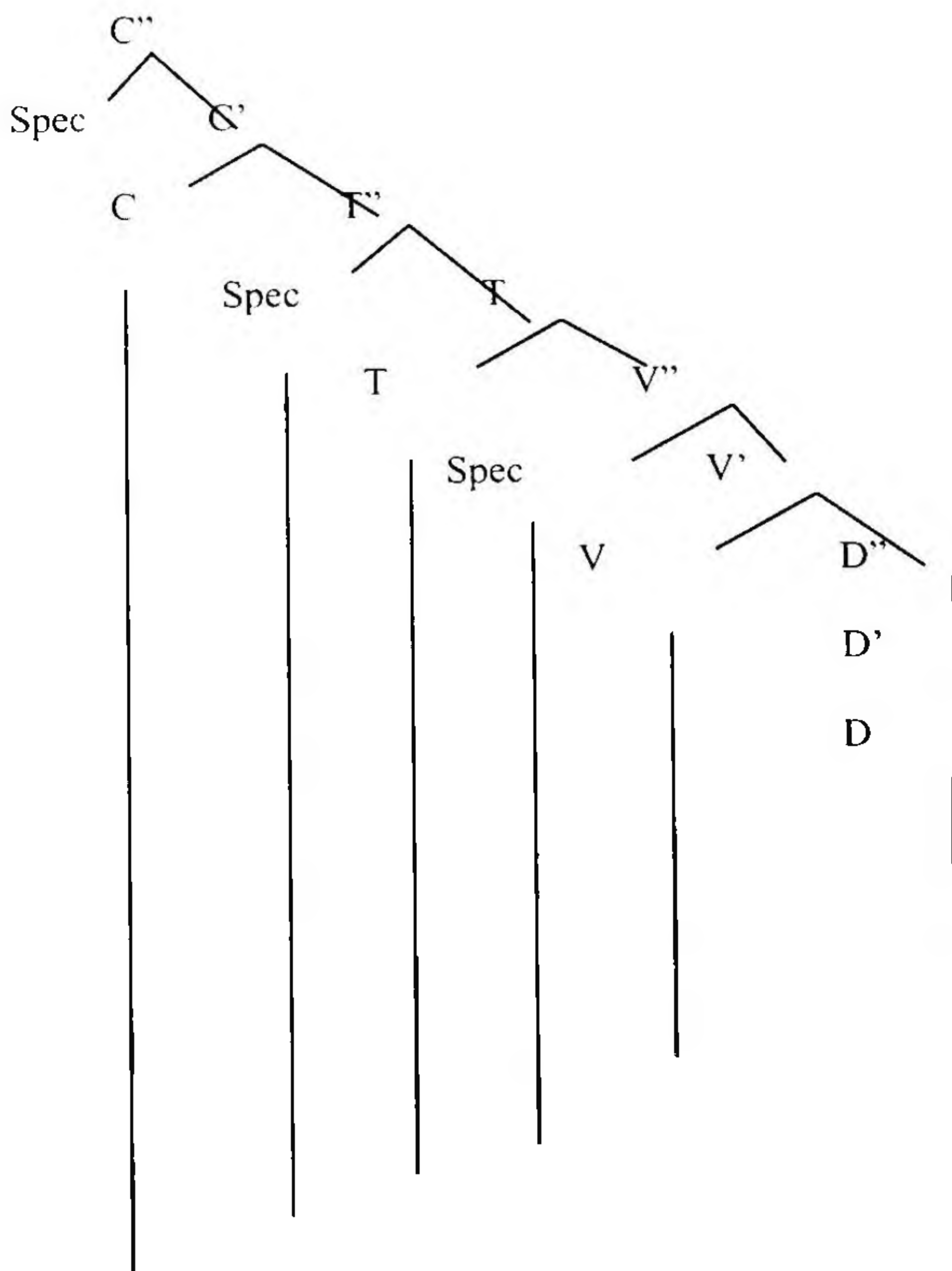
      I come you tomorrow.   then that   treat I with respect subj. you

      'I will come to you tomorrow. Then that, I will treat you with respect.'

                               (c.f. Wright, 1984, Vol, ii, p. 33)

(18b) is the spell-out tree diagram representation for (18a). The structure is merely for [C''].

18b.

'idhan	e	e	pro	'ukrima	ka
	then	that		pres. I	treat with respect you

In (18b), *'idhan* 'then that' occupies the head position [C, C'] of the maximal projection [C"] *'idhan pro 'ukrimaka* 'that pro treat you with respect'. To check the nominative case feature, the category *pro* 'I' must move to [Spec, T"] to get the nominative case by the empty tense marker (c.f Radford, 1988 and Chomsky 1982 for pro and case assignment). The verb *'ukrima* 'treat' moves to [T, T'] to check zero tense marker; if the verb is left over here, we get the ungrammatical sentence (18c).

18c.

```
                    C"
                  /  \
            Spec      C'
                    /  \
                  C      T"
                       /  \
                   Spec     T
                          /  \
                      T      V"
                           /  \
                       Spec     V'
                              /  \
                          V      D"
                                /  \
                              D'    |
                              |
                              D
```

'idhan	pro	'ukrima	jᵢ	tᵢ		ka
			jᵢ	tᵢ		
	then that	I		treat with respect		you

The verb in this position creates a barrier for the grammaticality of the sentence. Due to this problem, we refer to the mechanism of adjunction in which case the verb *'ukrima* can easily move to the position of [X/ V, X'ᵢ/ V'] as shown above in (15) and now represented in (18d).

18c.

'idhan	pro	'ukrima j_i	t_i		ka
		j_i	t_i		
then that	I	treat with respect			you

The verb in this position creates a barrier for the grammaticality of the sentence. Due to this problem, we refer to the mechanism of adjunction in which case the verb *'ukrima* can easily move to the position of [X/ V, X'$_{i/}$ V'] as shown above in (15) and now represented in (18d).

18d.

'idhan	ukrima	pro	t_{ii}	j_i	t_i	ka
	t_{ii}, t_i		j_i		
then that	treat with respect	I				you
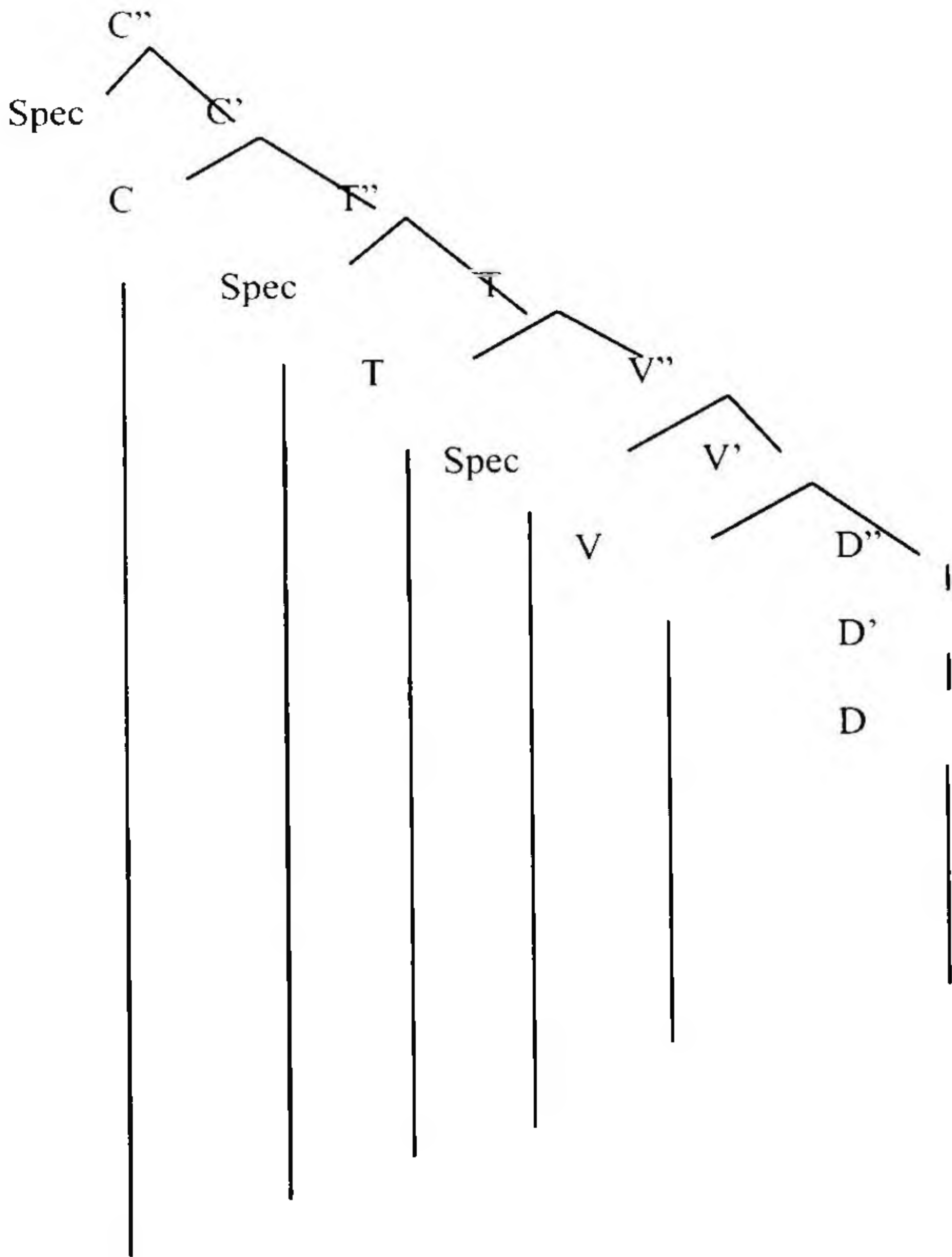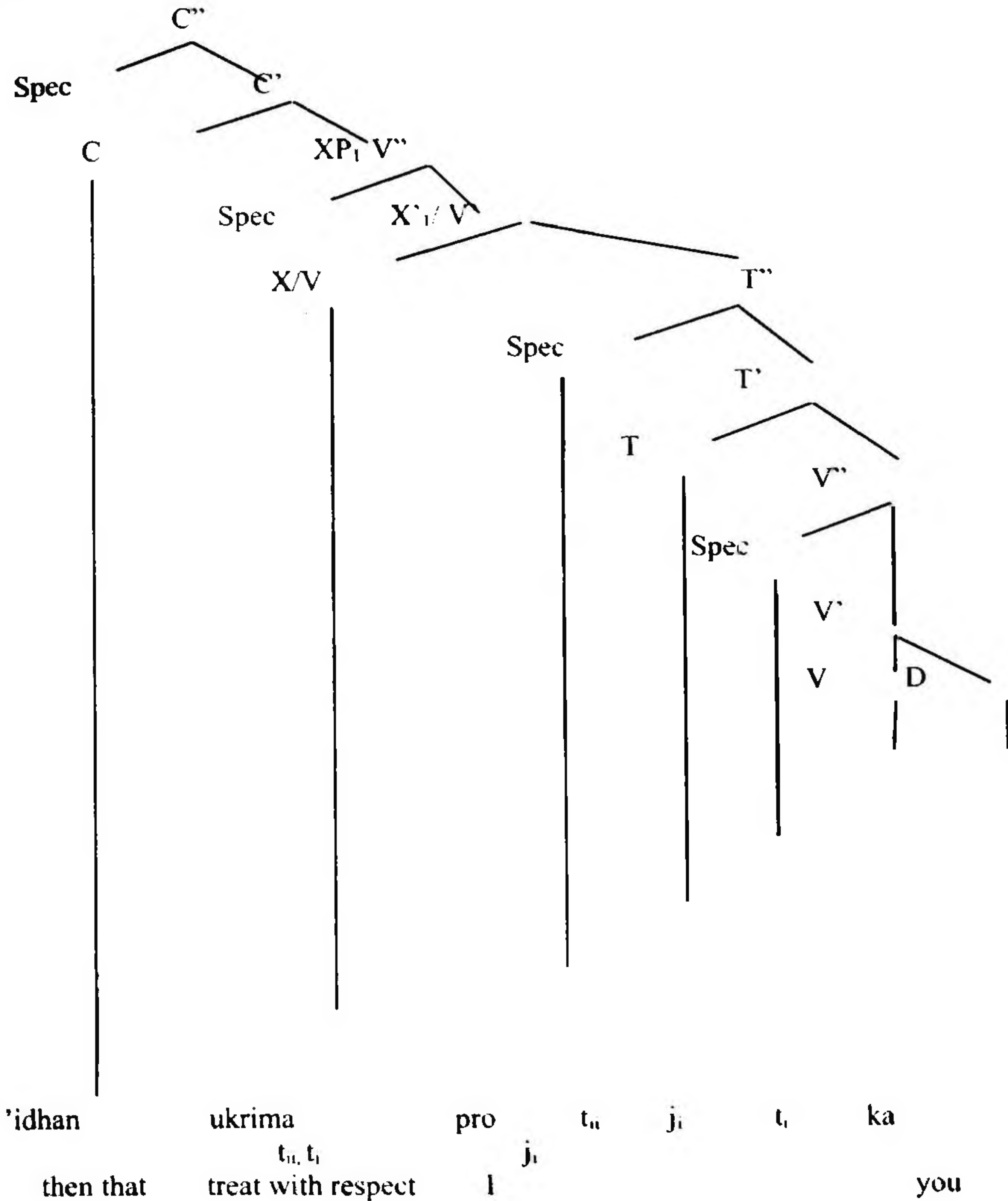
In (18d), the verb is finally landing at [X/V, X'$_i$/ V'] position without disturbing other entities and also maintaining the structure preserving principle. Thus, the problem of word order is solved as we get VSO at LF as in (18a). In short, Arabic has a unique type of dependent subjunctive structures which have the universal features as that of mandative except in two criterion; (i) they do not

form an argument that can check a theta role and (ii) the complementizers cannot be deleted as in [* 'ana ātīka ghadan 'ukrimaka '* I will come to you tomorrow. I will treat you with respect']. The universal features in (18a) are summarized as: the complementizer forms [C"] but not [T"] and [C"] involves covert finite tense feature. In other words, the verb 'ukrimaka is in default.

To avoid repetition of tree-diagrams in this analysis, the above two mechanisms of syntax can be applied to the rest of the complementizers (i) *hatta* ('an) 'until + that', (ii) *likai / kai* ('an) 'in order + that', (iii) *li* ('an) ' to + that' and *anla* 'that + not' mentioned in this work in the same style in the syntactic hierarchy as in (19-21).

19a. 'idrib   al-   lissa [xp"2 [x"2 X hatta ('an) [xp"1[x"1 X ya-   tūb- a]]]].

  beat you det thief   until   that   3rd, sg repent he subj.

Lit:

                    'Beat the thief until (that) he repent'
                    'Beat the thief until he repents'

                                        (c.f. Wright, 1984, III, p. 30)

19b. 'idrib   al-   lissa [xp"2 [x"2 X hatta [xp"1[x"1 X ya-   tūb-   a]]]].

  beat you det thief   until   3rd, sg repent he subj.

Lit:

                    'Beat the thief until he repent'
                    'Beat the thief until he repents'

                                        (c.f. Wright, 1984, III, p. 30)

19c.* 'idrib   al-   lissa [xp"2 [x"2 X   ('an) [xp"1[x"1 X ya- tūb-   a]]]].

  beat you det thief   that .   3rd, sg repent he subj.

Lit:

                    '* Beat the thief that he repent'
                    '* Beat the thief that he repents'

In (19a), the complementizer *hatta* ('an) 'until that' occupies the head of XP"2 while the verb *yatūba* 'repent' occupies the head position of XP1 after V-movement is performed.   (19b) is a grammatical sentence in Arabic syntax though the second component *'an* 'that' is omitted. However, as the first part *hatta* 'until' is deleted, (19c) is ungrammatical. Thus, the second part can be incorporated in the first part but not vice versa.

20a. ta-   ta'alamu   al- 'arabayyah [xp"2 [x"2 X kai   ('an) [xp"1[x"1 X tu -

  3rd,sg learn   det   Arabic   in order to   that she

  'alim-   a-   ha   li   al-   ākharīna]]]].
  teach   subj.   it   to   det   others

Lit:

'She is learning Arabic in order to (that) she teach it to others'
'She is learning Arabic in order to teach it to others'

(c.f. Wright, 1984, III, p. 28)

20b. ta- ta^{c}alamu al- ^{c}arabayyah [$_{XP''2}$ [$_{X''2}$ X kai [$_{XP''1}$[$_{X''1}$ X tu

3rd,sg learn det Arabic in order to she

^{c}alim- a- ha li al- ākharīna]]||].
teach subj. it to det others

Lit:

'She is learning Arabic in order to she teach it to others'
'She is learning Arabic in order to teach it to others'

(c.f. Wright, 1984, III, p. 28)

20c.* ta- ta^{c}alamu al- ^{c}arabayyah [$_{XP''2}$ [$_{X''2}$ X ('an) |$_{XP''1}$[$_{X''1}$ X tu -
3rd,sg learn det Arabic that she
^{c}alim- a- ha li al- ākharīna]]]].
teach subj. it to det others

Lit:

'* She is learning Arabic that she teach it to others'
'*She is learning Arabic that she teach it to others'

In (20a), the complementizer *kai* ('an) 'in order to that' occupies the head of XP"2 while the verb *tu^{c}alima* 'teach' occupies the head position of XP1 after V-movement is done. (20b) is a grammatical sentence in Arabic syntax though the second component *an* 'that' is omitted. However, as the first part of the complementizer *kai* 'in order to' is deleted, (20c) is ungrammatical. Thus, the second part can be incorporated in the first part but not vice versa.

21a. 'u- mir- a [$_{XP''2}$ [$_{X''2}$ X li ('an) [$_{XP''1}$ [$_{X''1}$ X yakuun- a

3rd,sg, was ordered he to that be
subj.
'awala al- mad^{c}uwīna]]]].
first det invitees

Lit:

' He was ordered to that he be the first of the invitees.'
'He was ordered to be the first of the invitees

(c.f. Wright, 1984, III, p. 28)

21b. 'u- mir- a [$_{XP''2}$ [$_{X''2}$ X li [$_{XP''1}$ [$_{X''1}$ X yakuun- a
3rd,sg, was ordered he to be subj.
'awala al- mad^{c}uwīna]]]].
first det invitees

Lit:

' He was ordered to that he be the first of the invitees.'
'He was ordered to be the first of the invitees

(c.f. Wright, 1984, III, p. 28)

21c. *'u- mir- a [$_{XP''2}$ [$_{X''2}$ X ('an) [$_{XP''1}$ [$_{X''1}$ X yakuun- a

3rd.sg.   was ordered   he   that   be
subj.
          'awala   al-   mad'uwīna]]]].
          first   det   invitees
Lit:

           ' * He was ordered that he be the first of the invitees.'
           '* He was ordered that be the first of the invitees'

In (21a), the complementizer *li ('an)* 'to that' occupies the head of XP"2 while the verb *yakuuna* 'be' occupies the head position of XP1 after V-movement is performed. (21b) is a grammatical sentence in Arabic syntax though the second component *'an* 'that' is omitted. As the first part *li* 'to' is deleted, (21c) is ungrammatical. Thus, the second part can be incorporated in the first part but not vice versa.

22a. khif- 0- tu [$_{XP"2}$ [$_{X"2}$ X 'an   la   [$_{XP"1}$ [$_{X"1}$ X yanjah- a   zayd- un
      fear past I   that not   pass   subj. Zaid
nom
Lit:

           'I feared that not Zaid pass.'
           'I feared that Zaid will not pass'

22b. khif- 0- tu [$_{XP"2}$ [$_{X"2}$ X 'an   [$_{XP"1}$ [$_{X"1}$ X yanjah- a   zayd- un
      fear past I   that   pass   subj. Zaid
nom
Lit:

           'I feared that Zaid pass.'
           'I feared that Zaid passes'

22c.* khif- 0- tu [$_{XP"2}$ [$_{X"2}$ X la   [$_{XP"1}$ [$_{X"1}$ X yanjah- a   zayd- un
      fear past I   not   pass   subj. Zaid nom
Lit:

           '* I feared not Zaid pass.'
           '* I feared Zaid not pass'

In (22a), the complementizer *'an la* 'that not' occupies the head of XP"2 while the verb *yanjaha* 'pass' occupies the head position of XP1 after V-movement is finished. (22b) is a grammatical sentence in Arabic syntax though the second component *al* 'not' is omitted. As the first part *'an* 'that' is deleted, (22c) is ungrammatical. Thus, both parts cannot be incorporated in each other.

In short, (19b, 20b and 21b) are grammatical structures in Arabic syntax as the second part is incorporated in the first one. However, in (22b), no such process is involved because *'an* 'that' is overt.

Conclusion

It was clear that the entities discussed in this work have various syntactic as well as semantic functions before being used as complementizers in Arabic syntax. As complementizers, they have different syntactic functions: for instance, the occurrence of the complementizer *idhan* 'then that' in the head position of [C, C'], in (18b), creates a barrier for its grammaticality and interpretation at LF. This was clear in the analysis because Arabic cannot have a structure that has the order a complementizer, subject and verb at this level as in (18c). Due to this drastic problem in syntax, we opt for the mechanisms of adjunction and V-movement as done in (18d). As a matter of fact, to apply such syntactic notions in Arabic, we have to maintain the structure preserving principle proposed by Chomsky (1986b). It says that structures established at D- structure must be preserved at S-structure. Thus, [V] which is visible at D-structure in (18b) remains [V] at S-structure. The structure preserving principle requires that a phrasal projection must move to another position labeled as a phrasal projection. This is exactly done in (18d). The projected maximal projection is [XP"$_i$]. This mechanism of adjunction does not violate the restriction imposed by Chomsky (1986b) which says: phrases can only be adjoined to maximal projections and that adjunction can only be to non-argument; thus; [XP"$_i$] which is the verb is *'ukrima* 'treat with respect' is a non -argument as it cannot be assigned a theta role in syntax. It is evident that in the sentences (19-21), the second part of the compound complementizers can be incorporated in the first but not vice versa; however, in (22), no such process is involved because *'an* 'that' is overt at all levels of syntax.

To sum up: the theoretical perspectives followed in this work, namely, the structure preserving principle, adjunction and V-movement are needed to discuss such subordinate subjunctive structures in a number of ways: the theory of X-bar syntax is maintained because the invented node carry the binary branching. The new node is a maximal projection which has been preserved all though the derivation. [XP"$_i$] constitute a non argument as a condition of adjunction. V-movement is essential as the verb in the course of derivation checks [T] and in a cyclic movement it lands at [X, X'$_i$] to get correct word order as in (18a). Thus, the theory is valid and fit for this work.
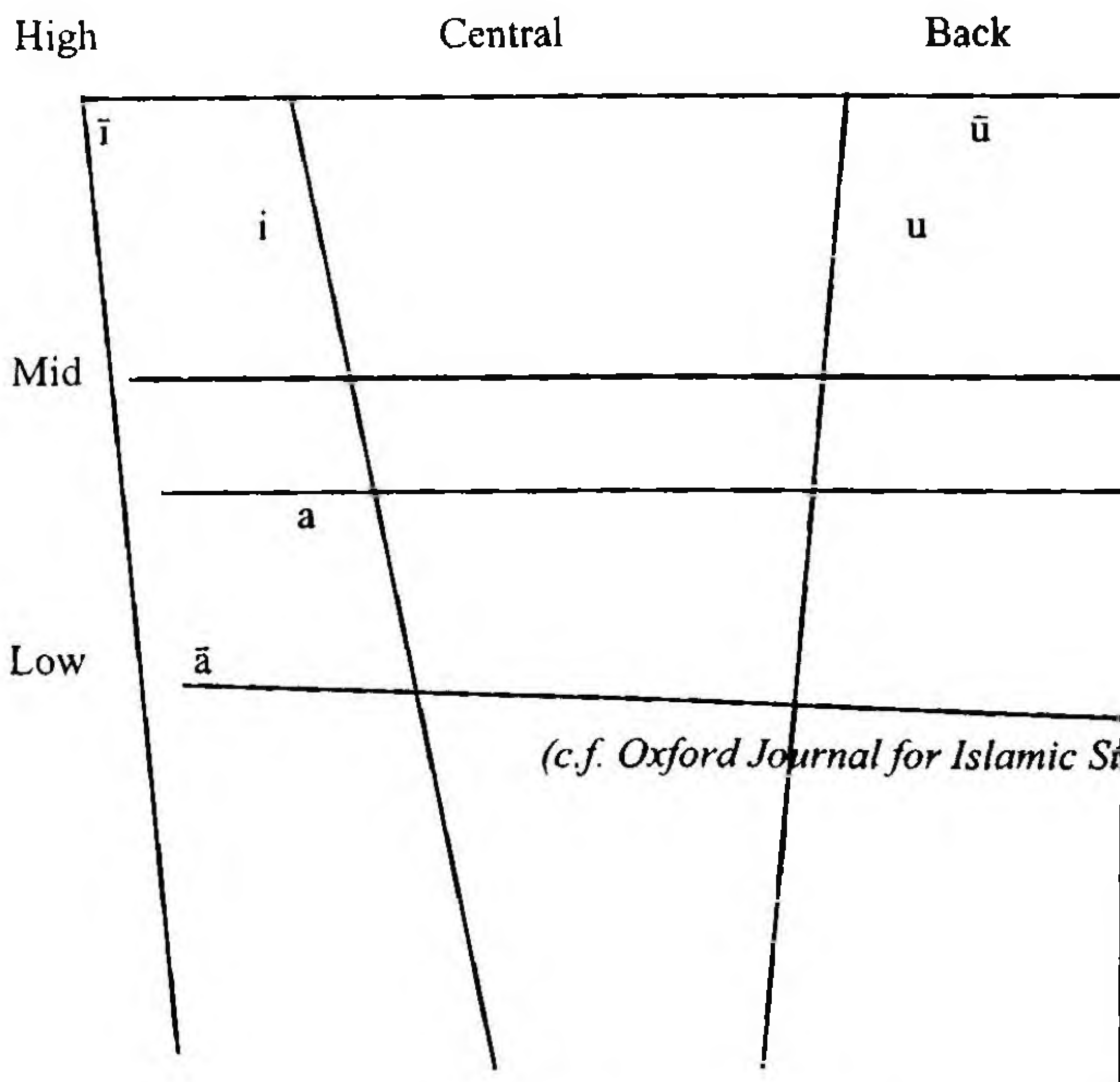
Appendix I

Transliteration Symbols of Arabic Consonants Phonemes

Arabic	Transliteration	Arabic	Transliteration
ا	'	ض	d̲
ب	b	ط	t̲
ت	t	ظ	z̲
ث	th	ع	ʿi
ج	j	غ	gh

ح	h	ف	f
خ	kh	ق	q
د	d	ك	
k			
ذ	dh	ل	l
ر	r	م	m
ز	z	ن	n
س	s	و	w
ش	sh		
ص	ṣ	ي	y

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

Appendix II
Transliteration Symbols of Arabic Vowels Phonemes

(c.f. Oxford Journal for Islamic Studies)

Appendix III

Abbreviations

Adv":	Adverb phrase
Adv:	Adverb
C":	Complementizer phrase
C :	A complementizer
Det :	Determiner
D":	Determiner phrase
e:	Empty
Juss.:	Jussive
LF :	Logical form
Lit :	Literally
NegP :	Negative phrase
Neg :	Negative marker
SVO :	Subject, Verb, Object,
Sg. :	Singular
Spec :	Specifier
subj :	Subjunctive
T" :	tense phrase
T:	tense
V" :	Verb phrase
V:	Verb
VSO:	verb- subject- object
$XP"_1$:	A maximal projection by adjunction equal to ZP i.e. (V")
$XP"_2$:	A minimal maximal projection equal to [C"]
YP".	A maximal projection equal to [T"]
ZP:	A maximal projection equal to V"

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