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FEATURES AND INTERPRETATION OF THE COMPLEMENTIZER? AN 'THAT' PHRASE IN ARABIC SYNTAX: MINIMALIST VIEWS

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ABSTRACT

The objective of this article is to investigate the crucial roles of the intrinsic categorial and functional optional features on the interpretation of the complementizer? an 'that' phrase in Arabic Syntax. It was not simple to decide the types and which features inter into interpretation, which features survive until LF and which are not. The researchers refer to Chomsky's (1995, 2001, 2005) Minimalist Views to solve the issues. The results reveal that the intrinsic categorial features of the nouns [Ds], verb [V], complementizer [C] and the optional feature [Number] enter interpretation; thus, they survive until the logical form [LF]; however, the optional features of tense [T], Case, gender, agreement subject [Agrs], Subjunctive [Subj.] and determiner [D ±] do not, and they are deleted before interface / or LF. These optional features are mapped to the phonetic form [PF] by phonological rules but without carrying semantic connotations. They also trigger [D] and [V] but not [? an 'that'] to move and merge in the syntactic hierarchy of X- bar – syntax at spell out to be checked to meet word order at VSO at LF.

KEYWORDS: Complementizer, Interpretability, Features, Semantic, Subjunctive.

1. INTRODUCTION

Though subjunctive clauses are finite, they have certain invariable features among languages; for instance, in non - inflectional languages like English neither tense [T], Case, subjunctive nor agreement subject [Agrs] markers have overt markers; however, in inflectional languages like Arabic [Agrs], Case and subjunctive are morphologically inflected but [T] is not. In such situations, the lexicon provides information (i.e., formal / intrinsic features) required for the lexical categories and other features of the language in the computational system for interpretation without redundancy; it excludes whatever predictable features by either principles of universal grammar [UG] or properties of the language in question. On a universal ground, there is a close interconnection between tense [T] and the complementizer [C]. The clause that contains a finite complementizer must project a finite tense / or I. whereas, a clause contains a non-finite complementizer requires a non-finite inflection. This agreement relation between the complementizer and the inflection is overtly marked in some other languages other than Arabic. For instance, in Irish, both a finite inflection and the complementizer are marked for [T] (cf., McCloskey, 1979, p. 12). Haegman (1983) found that, in West Flemish, not only a finite inflection but also a finite complementizer like dat 'that' is marked for the functional feature of agreement in person and number with the subject of the clause it introduces. The same phenomenon is found in Lower Bavarian German (cf., Bayer, 1984).

In theory, all items of the lexicon belong to both (i) substantive categories including: (noun, verb, adjective, adverb and complementizer [C]) and (ii) the functional categories including: (tense, agreement, determiner [D±], theta roles, cases and subjunctives [subj.] (cf., Chomsky, 1995, p. 6) (cf., Radford, 1988, 1997). Therefore, parameters, in one proposal are restricted to formal features [FF] with no interpretation at the interface (cf, Chomsky, 1995, p. 6); in another proposal, they are restricted to functional categories [FC] (cf., Borer, 1984; Fukui, 1986, 1988). Thus, there is a problem raised, in this regard; it is to decide what types of features and their relations to interpretability process of the internal - language. For instance, the types of features are: (i) categorial features [CF], (ii) agreement [Φ – features], (iii) Case features and (iv) strong F, where F is categorial. These features are further distinguished into (a) intrinsic features which are either listed in the lexicon of the internal language [IL] or determined by listed features and (b) optional features which are added arbitrarily as lexical items [LI], and they enter numeration. The intrinsic includes: (i) the categorial feature noun, (ii) person and (iii) ±human of the formal feature [FF] noun. It also includes: (i) Case (nominative in [FF], [T] and accusative Case in [FF] verb [V]. However, the optional includes: (i) plural (number) for the [FF] noun and (ii) Φ – features of the [FF] verb (cf, Chomsky, 1995, p. 277).

1.2. The Hypothesis

Categorial and functional features have different degrees of interpretability power in? an 'that' construction.

1.3. Problem of Study

The problems of the study need to be solved are to decide the types of features and their relations to interpretability process of? an 'that' construction and which features survive until LF and what are not. To solve the issues, the researcher refers to Chomsky's (1995, 2001, 2005) Minimalist Views.

1.4. Objectives and Questions of Study

The main objective of this article is to solve the problems. To achieve the objectives, the following questions are posited.

1. What are the intrinsic categorial and functional features of? an 'that' phrase in Arabic syntax?
2. What are the types of features interring interpretation and survive until [LF] and what are not?
3. Why are move and merge mechanisms being essential for interpretation of? an – construction?

1.5. Significance of Study

This study, based on the notion of Chomsky's (1995, 2001, 2005) minimalist Views, specifies the intrinsic categorial, functional features and their relation in the internal interpretation process of? an 'that' phrase in Arabic syntax. Therefore, it can safely be argued that the study is an extremely new addition to the field of syntax and semantics by differentiating between intrinsic and optional features in the interpretation process.

2. THEORETICAL FRAMEWORK AND LITERATURE REVIEW

2.1. Theoretical Review

Chomsky (1995, p. 277) and Chomsky and Lasnik (1993), argued that in the interpretability process of the internal language, the intrinsic- optional

distinction of formal features does not play a vital role. Thus, there is a much more important distinction to be here. For instance, certain features of [FF] of the lexical items [LI] enter interpretation at [LF] while others are uninterpretable and must be eliminated for convergence. Therefore, the crucial distinction between interpretable and non-interpretable is necessary. Interpretable features are the categorial features of nominals **[**person, ±human]; thus, the operations that interpret the [LI] at [LF] interface will have to know that [V] and [D /or N] with the Ø – features [plural], [± human] and [3rd person] are interpretable. However, the same operations do not interpret Case of [D], [T], [Subj.], and the agreement features of [V] which must be eliminated at [LF] for convergence. Thus, [± plural] of nouns are interpretable and cannot be eliminated at [LF]. Interpretability does not relate closely to the formal asymmetry of the checking relation, which holds between a feature F of the checking domain of the target K and sublabel F′ of K. F′ are always non-interpretable; they include: (i) strength of a feature, (ii) affixal features, (iii) the Case -assigning feature of [T] and [V], (iv) Ø – features of the verb and adjective (ibid, p. 278). However, the target has interpretable features which include (i) categorial and Ø – features of a noun which never enter checking relations. F, in the checking domain, is always interpretable feature including categorial and Ø – features. These differences between the checker (within the target) and the checked (within the checking domain) are significant in computation. The question arises: Why is a sublabel F′ of the target that enters a checking relation invariably non - interpretable? This question is necessary when a language has the operation Move and merge. In this case, the operation is morphologically driven; thus, there must be feature checkers in the targeted category. The fact that these are always non - interpretable highlights the special role of the property of displacement of categories that is a characteristic of human language. Chomsky (1995, p. 276-279) argued that interpretability at LF is determined by bare output conditions; it is obviously an important property of features. Therefore, checking is directly connected to interpretability. It was obvious above that some features remain overt at [LF] (i.e. accessible to the computational system) even after they are checked as [± plural] of nouns, which are interpreted; while some are erased at [LF] and are not accessible to the computational system when checked as that of Case as well as theta marking feature of nouns. These facts lead us to the following hypotheses: (a) "Features visible at LF are accessible to the computation C_{HL} throughout, whether checked or not" and (b) "Features invisible at LF are inaccessible to C_{HL} once checked" (ibid, p. 279). Both the hypotheses lead to the formulation of the Last Resort hypothesis: "Move F raise F to target K only if F enters into checking relation with sub-label of K" (ibid, p. 280). To elaborate the issue of strong / weak concept, noun phrase [D"] occurs at [Spec, vp]. Its formal features include [D±] and specific choices of Ø – features and Case and theta marking]. Since [T] has the strong feature (in relation to D – features related to extended projection principle (EPP)], the categorial feature of the noun [D] raises overtly to its checking domain in [Spec, T"] in a process called pied – piping the entire [D"]; therefore, the operation is substitution in [Spec, T"]. The nominative case feature is checked by [T] as a free rider as that of Ø – features. After covert raising of the verb that establishes the required checking relation. [Case] feature and theta features of [D] are non - interpretable; therefore, erased at [LF] after being checked; however, its Ø – features are interpretable and are accessible to further operations and retained at [LF]. Let us check [Agrs] with the verb. The subject [D] raised from [Spec, v] to [Spec, T"] then covertly to [Spec, Agrs"] to check weak agreement features. By virtue of Last Resort hypothesis, the operation must access the Ø – feature of [D] which checks weak agreement. As [3rd person, gender] and [plural] are interpretable, they are unaffected at [LF]. The noun satisfies [EPP], Case and agreement. Any of the relevant features may be accessed since all enter checking relation; thus, it enters a single [Agrs"] domain.

Chomsky (2001 and 2005, p. 21) argued that the phases, namely, complementizer phrase [C"] and [v*P] are determined by non - interpretable features. The values of these features are redundant and fixed by structural position during derivation. As they do not have semantic interpretations, they must be deleted before they reach the semantic interface for the derivation to converge. Thus, they do not have semantic values in the lexicon. In case the features have phonetic realization, they must be transferred to the phonological components to be valued at the phases. Thus, non- interpretable features are deleted by the mapping to the semantic component and must be given the exact phonetic properties they have in a particular internal - language by the phonological component. This fact is supported by the fact that once the features are valued, they are indistinguishable from interpretable ones and there is no indication of their relation to the interpretable features that match them and assign them their values. Thus, they must be transferred to the point

where they are valued at the phases which are the exact domains in which non-interpretable features are valued. The phases are related to morphological realizations; their edges are morphologically marked in successive – cyclic movement of the verb to the [Spec – C] which is found in the subject – agreement domain and T- agreement is derivative from the properties of the complementizer [C].

2.2. Empirical Literature Review

The relevant literature studies are based on the role of complementizers in the interpretation process of the internal language in different languages. Saxena (1995) proposed manner expressions that can be the source of complementizers such as demonstratives 'thus' or 'so', manner question words like 'how', manner nouns 'way' or similative adpositions 'like'. Their contributions to the development of manner expressions into complementizers may accompany by distinct semantic developments. For instance, Basque, Russian, and Semitic, the resulting complementizer is a factive; while, in Estonian, Finnish, and Polish, the resulting complementizers represent a lower degree of certainty. Gentens and Boye (2024) suggested a special development of manner expressions into complementizers. They proposed three types of complementizers (i) manner complementizers, (ii) inventive complementizers and (iii) propositional complementizers either through manner semantics or through integration of independent clauses. Friedmann et al. (2020) argued that the topmost clausal projection of the complementizer, Force Phrase [ForceP], could provide the impetus for the emergence of embedded clauses of different kinds in Hebrew. This observation is like the complementizer *che* 'that' in Italian which projects an embedded tense phrase with possible different semantic interpretations.

Mostcati and Rizzi (2021) confirmed that embedded clauses are categorially uniform because there are verbs that select a finite complement project ForceP under sisterhood in [C"]. All kinds of finite embedded clauses establish a syntactic and semantic relation with the topmost projection ForceP to check features where the appropriate grammatical traits are encoded to satisfy the requirements of the matrix embedding verb. The consequence of this issue is that other types of embedded clauses, such as the conditional clauses introduced by *se* 'that' are only possible if ForceP is already available in the early clausal structure. Thus, the appearance of *che* 'that' as a signal ForceP can be projected. Other different types of embedded clauses would emerge at the same time; thus, *che* 'that' could either slightly precede *se* and *di* 'that' in the structure in Italian, or the three particles become simultaneously accessible upon the availability of ForceP to check features.

Kotzoglou and Canakis (2021) argued that the complementizer *ke* 'that', in Greek, invariably copy the mood specification of the matrix verb. Thus, the embedded clause must be in a subjunctive and imperative mood in regret with the matrix subjunctive. *Ke*-complement clauses may be obligatorily controlled by an argument of the matrix clause with some predicates no matter in what mood they surface. The clauses constitute an argument for the fact that featural deficiency which is a necessary but not sufficient condition for control; they might be manifested in different ways even within the same language.

Alem (2024), Cartens (2003), Ackema and Neelam (2004), Weisser (2019) and Van Koppen (2005, 2008, 2017), illustrated that the complementizer may or may not agree with the subject in nonstandard West Germanic languages. For instance, in Frisian, intervention leads to ungrammaticality; however, in Limburgian, it leads to the realization of complementizer agreement between the intervener and the subject. These effects cannot be accounted for by existing Agree and PF analyses of complementizer agreement. As an alternative to these views, he proved that the complementizer agreement morpheme is a clitic.

3. ANALYSES AND RESULTS

3.1. Results of Question One

The intrinsic categorial features of the lexical items include: (i) categorial feature (ii) person and (iii) [±human] of a noun and (iv) Case (a. nominative in formal features [FF] tense [T] and b. accusative Case in [FF] of a verb [V]). However, the optional features include: (i) plural (number) for [FF] noun and (ii) Φ – features of [FF] verb. We may look at (1) in which the mandative verb *yaqtariḥu* 'suggest' constituent – selects? an 'that' complementizer finite subjunctive phrase [C") (cf, Mostcati and Rizzi (2021 for Italian).

1.[$_{T''}$?iqtaraḥa zaidun [$_{C''}$ [$_{C'}$ [$_{C}$?an [$_{V''}$ ya- ktub- **e** - a
suggested Zaid that 3rd,sg,masc. write T subj
[$_{D''}$ ᶜamr- un [$_{D''}$ dars- a- hu]]]]]]].
Amr NOM lesson ACC his
'Zaid suggested that Amr write his lesson'

In (1), the lexical categories in [C″] are (i) [C]? an 'that', verb *ktub* 'write', *ᶜamrun* 'Amr' and *darsahu* 'his lesson'.? *an* 'that' has the intrinsic categorial feature? an 'that' but the optional functional features of subjunctive force visible by [a] and Ø – features. The verb *ktub* 'write' has the categorial features of [verbal (i.e., Case, T, nominative and [V] accusative of [D″] and the optional features Ø – features which are invisible. The noun phrase *ᶜamrun* 'Amr' has the categorial features [nominal, human] and the optional features [number, Case, gender, Agrs]; the noun phrase *darsa-hu* 'his lesson' has the categorial feature [nominal, non - human] and the optional features [number, Case, gender, Agrs]. As far as the optional features of the noun phrases are concerned, [number] can be substituted by the plural form *duruu- (pl)-sa- hum* 'their lessons'. Regarding [Case] of the noun phrase, *ᶜamrun* 'Amr', it is assigned the nominative visible by the marker [un] and *darsahu* 'his lesson' the accusative case by the marker [a] respectively. Regarding gender the noun phrase *ᶜamrun* 'Amr' is a male person, but the noun phrase *darsahu* 'his lesson' is a female though it is inanimate. It is a syntactic fact that inanimate nouns are categorized either male or female in Arabic syntax; however, it is not the case in English which treats them neutral. And finally, [Agrs] is represented by the marker [ya], which is pre- attached to the verb ***ya-*** *ktub* to agree with it. As Arabic is rich in having several subject agreement markers, [Agrs] can be visible by other subject markers as in (i) ***ta-*** *ktuba* 'she write', (ii) ***ya-*** *ktuba al-walad-aani- (dual)* ' the two boys write', (iii) ***ya-*** *ktuba al-?awl-aa- (pl)- du* 'the boys write', (iv) ***ta-*** *ktuba al-ban-aa- (pl)- (fem) - tu* ' the girls write', (v) ***ta-*** *ktuba al- bint- aani- (dual)* ' the two girls write', (vi) ***na-*** *ktuba* 'we (boys) write', (vii) ***na-*** *ktuba* 'we (girls) write', (vii) ***?a-****ktuba* 'I (boy) write' and (viii) ***?a-****ktuba* 'I (girl) write'. A syntactic fact is that such markers might disappear if the verb *yaktub*' write' is used in the past as in [*kataba* 'he / the boys wrote'; thus, it is optional. In short, the features are categorized into intrinsic categorial and optional features. There are specific verbs that select finite mandative complements that project ForceP under sisterhood in the [C″] in Arabic syntax (cf., Mostcati and Rizzi (2021) for Italian)

2.[$_{T''}$?iqtaraha zaidun [$_{C''}$ [$_{C}$ [$_{C}$?an [$_{V''}$ ya- ktub- **e** - a
suggested Zaid that 3rd,sg,masc. write T subj
[$_{D''}$ ᶜamr- un [$_{D''}$ dars- a- hu]]]]]]].
Amr NOM lesson ACC his
'Zaid suggested that Amr write his lesson'

A look at (2) illustrates that interpretable features are represented by the lexical items? an 'that', [V] *ktub* 'write', [D″] *ᶜamrun* 'Amr' and [D″] *darsa-hu* 'his lesson'. *?an* has the obligatory categorial [C] feature, which is strong and enters interpretation. The verb *ktub* 'write' has an obligatory categorial [verbal] feature, which is strong and enters interpretation. Thus, it survives until [LF]. However, non - interpretable] features are represented by [Case] feature of [V] which is weak; therefore, it must be deleted at [LF]. Moreover, the optional features of [T and [Ø – features] of the verb are weak and do not enter interpretation; thus, they must be deleted at [LF]. As far as the interpretable features of [D″ s] are concerned, they are explicated as follows; for instance, *ᶜamrun* has the categorial feature [human] while *darsahu* has [non -human]; they enter interpretation and must be retained until [LF]. But the features of [person, gender and Agrs] have non - interpretability power; thus, they must be deleted. The feature [number] is strong and enters interpretation at [LF]. This is because it can be replaced by the plural form *duruusa-hum* 'their lessons. In short, whether the feature is either obligatory or optional, it must be checked to achieve correct interpretation at [LF]. Interpretable features are retained at [LF], but non -interpretable ones are not.

Based on the interpretability power, (2) can be interpreted as follows:

3.2. Results of Question Two

Theoretically, interpretability is a mechanism used in syntax at [LF] to get bare output by applying certain conditions during derivations; it is obviously based on important property of features. Therefore, checking is directly connected to interpretability. Semantically, some features remain overt at [LF] (i.e. accessible to the computational system) even after they are checked as Ø – features of nouns, which are interpreted; while others are erased at [LF] and are not accessible to the computational system when checked as that of Case feature of nouns as specimens. Therefore, certain internal features of? an enter interpretation at [LF], where universal, interface and uniform are to be met for convergence. The crucial distinction interpretable and non – interpretable features is necessary at [LF]. Interpretable features survive until [LF] but non - interpretable do not. We may look at (1) repeated here in (2) to solve the issue and avoid confusion.

3.?iqtaraha zaidun [C″ [C′ [C ?an [V″ ya- ktub- **e** - a
suggested Zaid that 3rd,sg,masc. write T subj
[D″ ᶜamr- un [D″ dars- a- zaid- in]]]]]].
Amr NOM lesson ACC Zaid GEN
'Zaid suggested that Amr write Zaid's lesson'

4.?iqtaraha zaidun [C″ [C′ [C ?an [V″ ya- ktub- **e** - a
suggested Zaid that 3rd,sg,masc. write T subj
[D″ ᶜamr- un [D″ dars- a- ᶜamr- in nafsahu]]]]]].
Amr NOM lesson ACC Amr GEN himself
'Zaid suggested that Amr write Amr's lesson'

5.?iqtaraha zaidun [C″ [C′ [C ?an [V″ ya- ktub- **e** - a
suggested Zaid that 3rd,sg,masc. write T subj
[D″ ᶜamr- un [D″ dars- a- ahad- in maa]]]].
Amr NOM lesson ACC some GEN one
'Zaid suggested that Amr write Amr's lesson'

In (3), one possible interpretation is that the matrix subject *zaidun* 'Zaid' suggested on the embedded subject *ᶜamrun* 'Amr' to write 'Zaid's lesson'. In (4), the same subject suggested on the embedded subject *ᶜamrun* 'Amr' to write 'Amr's lesson himself'. However, in (5) the same subject suggested on the embedded subject *ᶜamrun* 'Amr' to write 'someone else's lesson'. The question arises: Is? an 'that' significant in interpretation? It is evident that its deletion defects the grammaticality of phrase but not its interpretation as in (6).

6.*?iqtaraha zaidun [C″ [C′ [C **0** [V″ ya- ktub- **e** - a
suggested Zaid -- 3rd,sg,masc. write T subj
[D″ ᶜamr- un [D″ dars- a- hu]]]]]].
Amr NOM lesson ACC his
'Zaid suggested ----------Amr write his lesson'

Though (6) is ungrammatical in Arabic syntax, all the possible interpretations of (3-5) are understood. The only lacking meaning is the emphatic force which is not interpreted. However, if the verb *ktub* 'write' is omitted, we get both ungrammatical phrase and unacceptable interpretations due to (i) the object *darsahu* 'his lesson' cannot retreat the same verb and (ii) the verb can be replaced by other verbs as in (7).

7.*?iqtaraha zaidun [C″ [C′ [C ?an [V″ ya- **0** - **e** - a
suggested Zaid that 3rd,sg,masc. -- T subj
[D″ ᶜamr- un [D″ dars- a- hu]]]]]].
Amr NOM lesson ACC his
'Zaid suggested that Amr -------- his lesson'

In (7), the verb *ktub* 'write' could be replaced with other verbs such as *yamsah* 'erase', *yafham* 'understand', *yuᶜiid* 'rehearse' and so on. Thus, the interpretation is rejected. In case the object *darsahu* 'his lesson' is deleted, we also have ungrammatical phrase and unacceptable interpretation because the object can be substituted by noun phrases such as *riwaayatihi* 'his novel', *qissatihi* 'his story', *dhikrayaatihi* 'autobiography' and so on as in (8) as a specimen.

8.*?iqtaraha zaidun [C″ [C′ [C ?an [V″ ya ktub - **e** - a
suggested Zaid that 3rd,sg,masc. write T subj
[D″ ᶜamr- un [D″ - **0**]]]]]].
Amr NOM --
'Zaid suggested that Amr write ----------'

Suppose the embedded subject *ᶜamrun* 'Amr' is deleted with reference to (2), we get both ungrammatical phrase and incorrect interpretation in (9).

9.*?iqtaraha zaidun [C″ [C′ [C ?an [V″ ya- ktub - **e** - a
suggested Zaid that 3rd,sg,masc. write T subj
[D″ **0** - **0** [D″ dars- a- hu]]]]]].
----- ---- lesson ACC his
'Zaid suggested that---------- write his lesson'

In short, though the deletion of? an 'that' defects the grammaticality of the phrase but does not defect

its interpretation. However, the deletion of any other lexical items defects the interpretation.

3.3. Results of Question Three

Syntactically, the mechanisms (i) merge and (ii) move are essential for correct interpretation of internal - language. Thus, they have direct relations with the selection of lexical categories and their features. For instance, [C″] is a functional category selects [T″] as a complement and filled with a complementizer. It is neither Case nor theta position. The functional categories [[Subj.], [T], [Agrs] and [D±]] do not enter semantic interpretation. However, they are essential for syntactic purposes in X - bar syntax. In the checking process, [T] feature must be checked by enforcing the verb to raise to it by adjunction. [Agrs] is an element that involves (i) Case – assignment and (ii) agreement (a collection of Ø – features for [D″] and checked by [V]); we adopted the order [Spec- Agr- T- V″] in accordance with Chomsky (1995, p. 59) and Belletti (1990) to get correct syntactic structure. [Agrs] involves subject - verb agreement features. [T] has nominative case features. It enforces the verb to raise to be attached to it by adjunction. The final version of minimalist program has the structure [$_{C''}$ Spec, C [$_{T''}$ Spec, Agrs [$_{T''\ Spec}$, T [$_{vp}$ Spec, v [$_{AgroP}$ Spec, Agro [$_{VP}$ Spec, V]]]]]] in X- bar syntax (cf. Chomsky, 1995, p. 73 and 325). This pattern is optimal to get correct grammatical structure but irrelevant to interpretation. Theta roles are checked by light verb [v] without moving or merging. Regarding the feature ([D±] / a noun with or without an article), it is a functional head of the maximal projection [D″]; it is checked by merge. We may look at (10) to discuss the issues of move and merge in? *an* – construction in Arabic syntax.

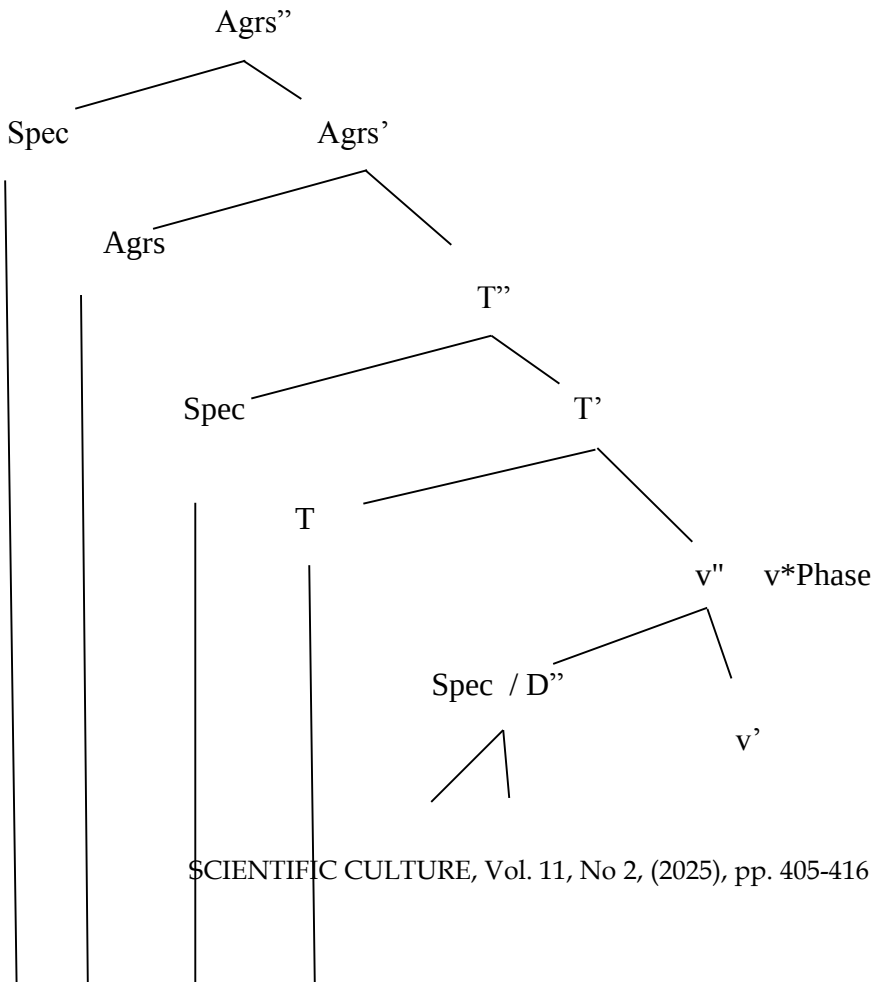
LF

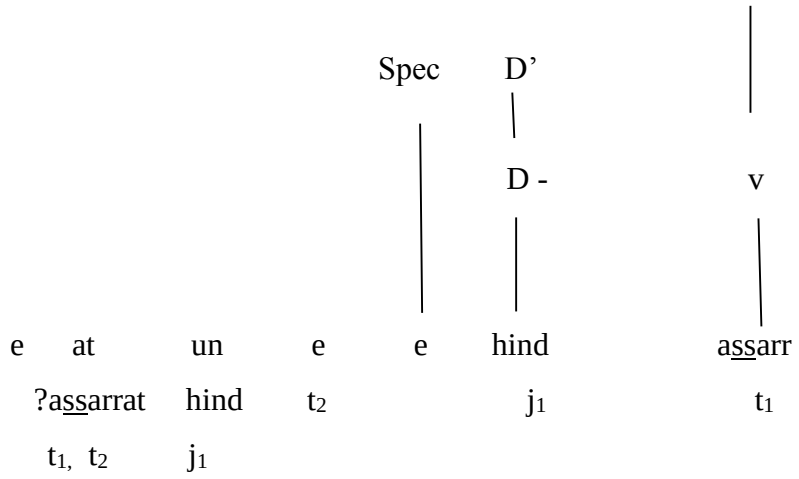
10a. ?assarr - at hindun [$_{C''}$ [$_{C'}$ [C ?an [$_{V''}$ ya- ktub- **e** - **a**
insisted fem Hind that 3rd,sg,masc. write T subj.
[$_{D''}$ ᶜamrun [$_{D''}$ darsa- hu]]]]]].
Amr lesson his
'Hind insisted that Amr write his lesson'

To get the correct interpretation of (10a), we must expose the reader to two different structures. The first is the spell out of the matrix clause? *assarrat hindun* 'Hind insisted' in (10b) and the second is [C″]? *an yaktuba ᶜamrun darsahu* 'that Amr write his lesson in (10c). In both structures, Arabic is dealt with in this work as SVO at spell out level but VSO at PF for correct feature checking (cf, Jalabneh, 2014, and 2025). In both, the mechanisms, namely, move and merge are applied.

Spell out

10b.



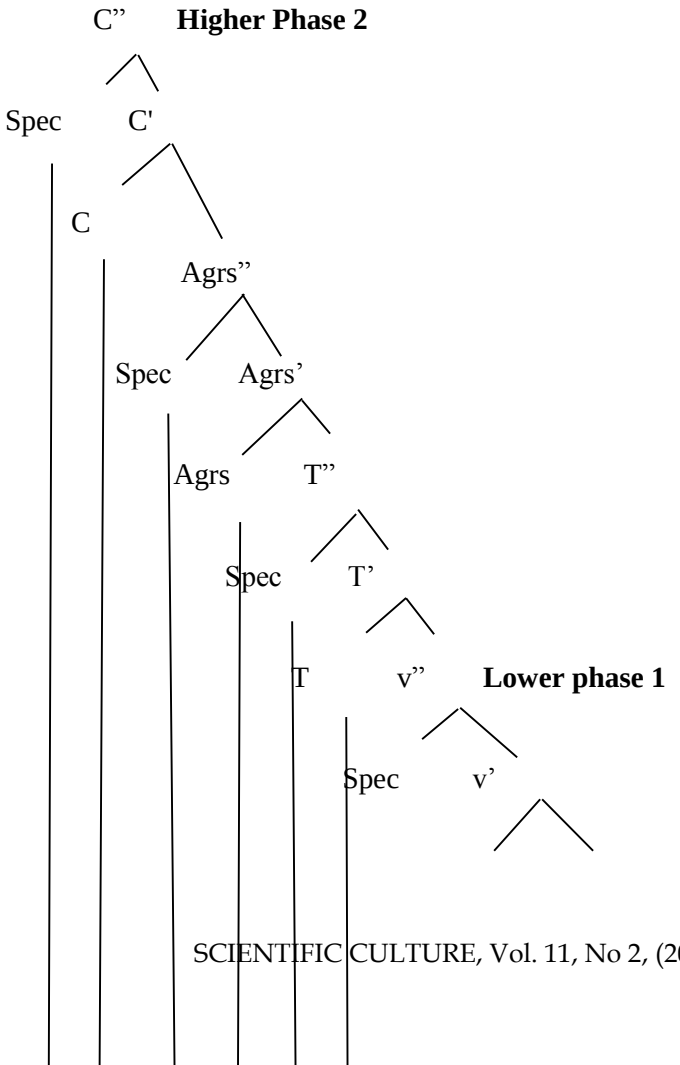


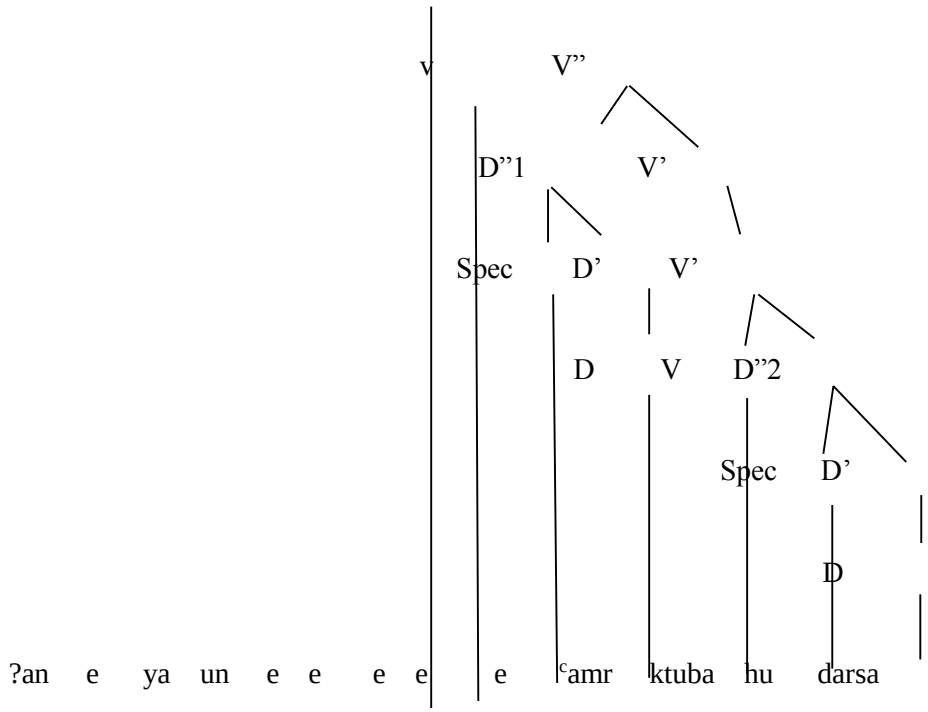
In (10b), the matrix clause is *?assarrat hindun* 'Hind suggested'. In it, [T] is filled with the empty tense [e]; but [Agrs] is filled with the feminine marker [at]. In so far as [D-] is concerned, it is empty because the head [D"] *hindun* 'Hind' is a proper name and cannot be marked by an article. The spell out (10b) assures that [T] is checked by enforcing the verb? assarr 'suggest' move from the light verb position [v, v'] to [T, T'] and merge to become? assarr-*e* 'suggested' by adjunction. However, [Agrs] is checked by enforcing the verb to move higher to the position of [Agrs, Agrs'] and merge with it and becomes? assarrat 'suggested' by adjunction. [D"] *hind* 'Hind', in the [Spec, v"], checks [D-] as a proper name by merge. It must move to [Spec, T"] to check the nominative case by substitution. The checking relation is directly associated with interpretation in the sense that these functional features must be checked though they lack semantic connotations.

To complete the checking process completely, we may look at (10c) below to check the same features in the subjunctive embedded? an 'that' phrase.

Spell out

10c.





In (10c),? an 'that' phrase is? a *yaktuba ᶜamrun darsahu* 'that Amr write his lesson'. [C] is filled with the complementizer? an 'that', [Agrs] with [ya], [T] with the empty tense marker [e] and at last [D+] in [Spec, D"] with [*hu* 'his']. A look at (10c) assures to us that [Agrs"] projection intermediates [T"] and [C"] projection in accordance with Chomsky's (1995) split INFL hypothesis. [C] is checked in [C, C'] as it is the head of the embedded clause in which all subjunctive mood features are forced on the verb *ktub-a* 'write + subjunctive'. [T] is checked by enforcing the verb *ktub* 'write' raise from the lower phase 1 [v, v'] to [T, T'] to become *ktub-e* 'write' by adjunction. [Agrs] is checked by enforcing the same verb to move higher to [Agrs, Ags'] by adjunction and becomes *yaktuba* 'write'. The feature [D±] is represented by [hu] in [Spec, D"2] according to X'-syntax because it is the determiner of the whole noun phrase. Thus, it is checked by merging [D] *darsa* 'lesson' to it and becomes *darsa- hu* 'his lesson'. However, [D-], in [Spec, D"1]] is checked by merging [D] *ᶜamr* 'Amr' to it. Then, it moves to check the nominative case in the position of [Spec, T"] and becomes *ᶜamrun* 'Amr'. In short, move and merge are essential because the features [T], [Agrs] and [D±], but not [C] trigger movement and merge of the lexical categories [D] and [V] for feature checking in Arabic syntax. It is evident that [T], [Agrs] and [Subj.] are non – interpretable features but [D±] and [V] are interpretable ones. Thus, the sentence (10a) is interpreted as (10d) and (10e) respectively.

10d. ?assarr- at hindun [$_{C''}$?an [$_{V''}$ ya- ktub- **e - a**
insisted fem Hind that 3rd,sg,masc. write pres. subj.
[$_{D''}$ ᶜamrun [$_{D''}$ darsa- ᶜamr (nafsahu)]]]].
Amr lesson Amr (himself)
'Hind insisted that Amr write Amr's lesson (himself)'

10e. ?assarr - at hindun [$_{C''}$?an [$_{V''}$ ya- ktub- **e - a**
insisted fem Hind that 3rd,sg,masc. write pres. subj.
[$_{D''}$ ᶜamrun [$_{D''}$ darsa- ?ahadun ma]]]].
Amr lesson someone else's
'Hind insisted that Amr write someone else's lesson'

In short, if we compare the above results with the relevant literature, we agree with Mostcati and Rizzi (2021) who confirmed that embedded clauses are categorially uniform because there are verbs that select a finite complement project ForceP under sisterhood in [C"]. This is evident that, in Arabic, there are verbs that select a finite complement project ForceP on the verb in [C"]. We also agree with

Kotzoglou and Canakis (2021) who argued that the complementizer *ke* 'that', in Greek, heads the embedded clause in a subjunctive but in regret with the matrix subjunctive; likewise, in Arabic *?an* 'that' heads an embedded clause in the subjunctive but there is no subjunctive in the matrix. We also agree with Alem (2024, Cartens (2003), Ackem and Neelam (2004), Weisser (2019) and Van Koppen (2005, 2008, 2017) who illustrated that the complementizer does not agree with the embedded subject in nonstandard West Germanic languages. Similarly, A does not agree with the embedded subject. The complementizer? An 'Amr' enters interpretation, but the subjunctive mood does not.

4. DISCUSSIONS

4.1. Discussion of Question One

It was evident that, in (1), the complementizer? an 'that' initiates a dependent mandative subjunctive clause in which there were intrinsic and optional features in Arabic syntax. It was visible that it had the intrinsic categorial feature? an 'that' but the optional functional features, namely, subjunctive marker [a]. The verb *ktub* 'write' has the categorial features of [verbal (Case, [T] nominative and [V] accusative of D"] and the optional functional features Ø – features, which are invisible. The noun *ᶜamrun* 'Amr' has the categorial features [nominal, human] and the optional features [number, Case, gender Agrs]; the noun *darsa-hu* 'his lesson' has the categorial feature [nominal, non - human] and the optional features [number, Case, Agrs]. It was proved that [number] is optional, and it can be substituted by various plural forms. All the above features are specified because the complementizer? an 'that' has been selected as an embedded dependent clause in the subjunctive.

4.2. Discussion of Question Two

It was proved that, in (2), that the interpretable features are represented by the lexical items? an 'that', [V] *ktub* 'write', [N] *ᶜamrun* 'Amr' and *darsa-hu* 'his lesson'. Thus, they survive until [LF]. However, non - interpretable features are represented by [Case, T, gender Agrs and Ø – features of the verb]; thus, they must be deleted at [LF]. As far as interpretable features of [D" s] are concerned, they are represented by either human or non - human, which must be retained until [LF]. But the features of [person, gender and Agrs] have non - interpretability power; thus, they must be deleted. The feature [number] is strong and has interpretable power at [LF]. This is because it can be replaced by the plural form *duruusa-hum* 'their lessons. Thus, whether the feature is either obligatory or optional, it must be checked to achieve correct interpretation. The sentence (2) can be interpreted into three different interpretations in (3, 4 and 5). In case? An 'that' is deleted, it defects the grammaticality of (6) but not its semantic interpretation. If the embedded verb of? An is deleted, we get ungrammatical phrase and unacceptable interpretation in (7). If the noun phrase [D"] is omitted, we get ungrammatical phrase and unacceptable interpretation in (8). If the embedded subject is deleted, we get ungrammatical phrases and incorrect interpretation in (9).

4.3. Discussion of Question Two

It was proved that the mechanisms of move and merge in (10a, b, c,) are essential for the interpretation of? an – construction because the features [T], [Agrs] and [D±] but not [C] trigger movement and merge of the lexical categories [D] and [V] for feature checking in Arabic syntax for correct interpretation. It is evident that [T], [Agrs] and [Subj.] are non - interpretable features but noun phrases with or without determiner [D±] and [V] are interpretable ones; thus, (10a) can be interpreted into (10d and 10e).

5. CONCLUDING REMARKS AND RECOMMENDATIONS

This kind of study was necessary to be pursued in Arabic syntax because there were problems that needed to be solved to decide (i) the types of features whether intrinsic categorial or optional functional, (ii) their relations to interpretability process in *?an* 'that' construction and which features survive until [LF] and what are not and (iii) the significance of Chomsky's (1993, 1995, 2001, 2005 and Chomsky and Lasnik (1993) mechanisms of move and merge to solve the issues. It was proved that intrinsic categorial features were represented by the lexical categories along with their obligatory features; however, the optional functional features were represented by non- lexical categories. In addition, the study proved that the intrinsic categorial features had interpretability power; thus, they survived until [LF]; while the optional functional features did not have such power, and they must be omitted before interface / [LF]. Such issues were solved with the help of the mechanisms of move and merge. Thus, the hypothesis that says: "Categorial and functional features have different degrees of interpretability powers in? an 'that' construction' proved to be correct. Based on these notions, we recommend the following: (i) Chomsky's (1993, 1995, 2001, 2005 and Chomsky and Lasnik (1993) Minimalist Views are essentials to be followed to solve such intricate issues

in syntax and semantics not only in Arabic as a pro – drop – language but also in other nominative / accusative and ergative / absolutive languages, (ii) syntacticians must practice such views in their recent research work to publicize such universal grammar parameters and (iii) such views must be taught at M.A and Ph. D level in the linguistics Departments everywhere theoretical linguistics are taught in the world.

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REFERENCES

Ackema, p. & Neelaman, Ad. (2004). Beyond morphology: Interface conditions on word-formation. Oxford: Oxford University Press.

Alem, A. (2024) Complementizer Agreement is Clitic Doubling: Evidence from Intervention Effects in Frisian and Limburgian. *Natural Language & Linguistic Theory. Vol. 43. p.115-149.*

Bayer, J. (1984). Towards an explanation of certain that-t phenomenon: the COMP- node. In Bavarian in De Geest, W. and Putseys, T, (eds) Sentential Complementation. p. 23-37.

Borer, H. (1984). *Parametric Syntax.* Dordrecht: Foris.

Cartens, V. (2003). Rethinking complementizer agreement: agree with a case-checked goal.. Linguistic Inquiry. Vol. (34). Issue. (3).

Chomsky, N. and Hawar. L. (1993). The theory of principle an parameters. In J. Jacobs,A. von Stech,W.Sternefeld, and Vennemann, eds. Syntax: An international handbook of contemporary research. Berlin: de Gruyter.

Chomsky, N. (1993). A minimalist program for linguistic theory. In Hale and Keyser. 1993b.

Chomsky, N. (1995). *The Minimalist Program*. Cambridge, Mass: MIT press.

Chomsky, N. (2001). "Derivation by Phase". In Kenstowicz (ed.), Ken Hale: *a Life in Language* (MIT)

Chomsky, N. (2005). Three Factors in Language Design. *Linguistic Inquiry*, 36: 1-22.

Fukui, N. (1986). A Theory of Category Projection and Its Application. Doctoral dissertation, MIT. Revised version published as *Theory of projection in syntax.* Stanford, Calif.: CSLI Publication (1995). Distributed by University of Chicago.

Friedmann, et al. (2020). Growing trees: The acquisition of the left periphery. https://glossia: a journal of general linguistic. Vol. (6). No. (1). Lingauf.net/ling uzz/

Fukui, N. (1988). Deriving the Differences between English and Japanese: A Case Study in Pragmatic Syntax. *English Linguistics, 5, 249-270.*

Gentens, C. Boye, K. (2024). Introduction: the development of manner expressions into complementizers or quotatives. Linguistics. Vol. (62). No. (3). p. 531-539 relative clauses. In Bennis, H. and Van Lesson Kloeke, W.V. S. Linguistics in the Netherlands, p. 83-91.Jalabneh, A. (2014). Minimalist Study of subordinate Features in Arabic Syntax. Interdisciplinary Journal of Linguistics. Vol. (7). No. (1). Jalabneh, A. (2025). Lan 'not that' projection in Arabic syntax. Minimalist views. Scientific Culture. Vol. (11). No. (1).

Jalabneh, A. (2022). Independent and Subordinate Subjunctive Phrases and Theta - Marking in Arabic Syntax. A Minimalist View. *TPLS. Issue, 6.*

Kotzoglou, G and Canakis, C. (2021*). On Some Properties of The Complementizer Ke.* https://www.researchgate.net/publication/356194117

McClosky, J. (1979). Transformational syntax and modal theoretic semantics. Reidel: Dordrecht.

Mostcati, V and Rizzi, L. (2021) The Layered Syntactic Structure of the Complementizer System: Functional Heads and Multiple Movements in the Early Left-Periphery. A Corpus Study on Italian. *Psychology of Language. Vol. 12.* | https://doi.org/10.3389/fpsyg.2021.627841

Radford, A. (1988). Transformational grammar. New York: Cambridge University Press.Radford,

A. (1997). Syntax. A minimalist introduction. New York: Cambridge University Press.Saxena,

A. (1995). Unidirectional grammaticalization: Diachronic and cross-linguistic evidence. Sprach typologie and Universalism forschung (STUF). Vol. (48). No. (4).

Van Koppen, M. (2005). One probe, two goals:aspect of agreement in Dutch dialects. PhD. Diss, Leiden University.

Van Koppen, M. (2008). Agreement with (internal structure of) copies of movement. Germany: John Benjamins

Publishing.
Van Koppen, M. (2017). Complementizer agreement. In the Wiley Blackwell companion to syntax, Zudedn, eds. Martin Everaert and Henk, C. Van Peramsdijik, 1-46.
Wiley and'ne library. https://doi.org/10.1002/9781118358733.wbsyn.comWeisser, ph. (2019). Telling allomorphy from agreement. Glossia: A Journal of General Linguistics. Vol. (4). No. (1).