BRILL

Brill's Annual of Afroasiatic Languages and Linguistics 3 (2011)
236–280

BAALL
brill.nl/aall

On issues of Arabic syntax: An essay in syntactic argumentation

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Review of *The Syntax of Arabic (Cambridge Syntax Guides series)*, by Joseph E. Aoun, Elabbas Benmamoun, and Lina Choueiri, 2010. The UK: Cambridge University Press, 258 pages. Paperback ISBN 978-0521659864; Hardback ISBN 978-0521650175.

Abstract
This review essay aims to present a range of syntactic facts from Arabic dialects as discussed in *The Syntax of Arabic*, provide an evaluative discussion of the authors' analyses of these facts, and, when needed, offer potential alternative accounts. More specifically, the essay focuses on a number of syntactic phenomena as varied as clause structure, word order alternation, the subject-verb agreement asymmetry, patterns of sentential negation, strategies for wh-question-formation, as well as their implications for general linguistic analysis. It is hoped that this review represents an example of the kind of syntactic argumentation and debate expected to be engendered by *The Syntax of Arabic*, and as such contributes to the ongoing research agenda on issues of Arabic syntax, which should be of empirical and theoretical value not only to Arabic linguists, but to typologists and syntacticians at large.

Keywords
Arabic clause structure; word order alternation; agreement asymmetry; sentential negation; wh-questions

1. Introduction

One of the central goals of linguistic analysis in the last half a century or so has been to characterize what is "a possible human language," reflecting the long-standing observation that linguistic variation is not unlimited, and that linguistic diversity is constrained by a finite number of general principles that underlie all human languages—a set of principles that, once formulated, can help us predict "possible language types" as opposed to "impossible language types." Linguistic theory is thus a comparative endeavor, by definition, since the only way we can uncover such underlying principles is through the

DOI: 10.1163/187666311X562486

scientific investigation of how certain linguistic phenomena manifest themselves in various languages. Within this comparative approach, one may further make a sub-distinction between *macro-comparative* linguistic analysis, which deals with variation between languages belonging to typologically different families, and *micro-comparative* linguistic analysis, which focuses on variation internal to the same language family or subfamily.

The Syntax of Arabic is a contribution to linguistic analysis at both levels: It introduces the reader to the major syntactic structures in Arabic dialects, pointing out how they differ from corresponding structures in other languages, while at the same time focusing on how within that same language family, Arabic dialects exhibit asymmetries in syntactic behavior in various grammatical constructions. As in the case with research in the generative tradition, the range of cross-linguistic and cross-dialectal variation studied allows us to focus on those "subtle" distinctions along which linguistic systems may differ, while at the same time singling out "universal" tendencies that all (or, almost all) human languages share. In the relevant literature, such an approach has come to be known as the *Principles and Parameters* theory (cf. Chomsky 1981, 1993, 1995, and Chomsky and Lasnik 1993), and it is within this framework of linguistic analysis that *The Syntax of Arabic* is written.

While the study of Arabic linguistics has traditionally focused on the so-called standard "high variety" in what has always been described as a *diglossic* speech community (Ferguson 1959), with the spoken "low varieties" receiving little to no attention at all by traditional grammarians, in recent years, there has been a surge in the study of Arabic spoken dialects, in addition to Standard Arabic (SA, henceforward). *The Syntax of Arabic* represents an example of modern linguists' interest in both SA as well as cross-dialectal variation among the modern dialects, a trend that will hopefully continue to grow in the upcoming years, thereby bringing more data from these various dialects to bear on issues of linguistics analysis.

The book, co-authored by Joseph E. Aoun, Elabbas Benmamoun, and Lina Choueiri (to be referred to in this review as ABC from now on), is the latest in the *Cambridge Syntax Guides* series, and as such aims to provide an overview of the main syntactic structures in Arabic dialects that should be of value to those interested in the descriptive study of these dialects as well as those concerned with the theoretical implications of such phenomena for general linguistic analysis. As the authors indicate, the book is intended to be used by both graduate students interested in Arabic syntax as well as syntacticians and typologists interested in aspects of cross-linguistic variation in general. As such, the book is, undoubtedly, a valuable resource of information on Arabic syntax, since it not only presents the key research results of the authors and other

Arabic linguists over the last twenty years or so, but also provides avenues for future research on Arabic cross-dialectal variation that should be of relevance not only to those interested in Arabic linguistics, but to anyone interested in comparative linguistic analysis as well.

As far as its scope is concerned, the book focuses on sentential syntax, where Arabic dialects provide a rich area for the investigation of several of the recurrent themes in linguistic analysis over the last three decades: clause structure, word order, agreement/case, null subjects, negation, wh-dependencies, resumption, relative clauses, clitic-left dislocation, focus constructions, and the structure of the left-periphery. As the authors point out, the book does not provide a discussion of the syntax of DP structure, one area in the investigation of Arabic syntax that has received particular attention in the generative literature on both Arabic and Hebrew (cf. Ritter 1991; Fassi Fehri 1993; Borer 1996; Siloni 1997; Benmamoun 2000, among others).

As is often the case, one of the key characteristics of a successful publication is how strongly it invites a debate and evaluation of the issues discussed, and how far it is able to propel research in the domain of inquiry forward. *The Syntax of Arabic* is no exception in this regard. This review is, therefore, intended as a discussion of the book's main analyses of some of the major topics in Arabic syntax, where I also take the opportunity to bring data (mostly from Egyptian Arabic) to bear on the analyses presented by ABC as well as present potential alternative analyses of some of the facts under study when needed, thereby hoping to further enrich the debate on various themes of Arabic syntactic analysis.

The review is structured as follows: Section 2 discusses issues of clause structure, word order alternation, and sentential agreement. The focus of Section 3 is on sentential negation patterns in modern Arabic dialects. Section 4 deals with the syntax of wh-interrogatives. Section 5 is a brief conclusion.

2. Clause structure and word order in Arabic dialects

As with syntactic analyses of other languages, the study of clause structure and word order has figured as one major topic in the study of Arabic syntax. There have been three main questions in this regard: (i) What are the syntactic categories in the clausal hierarchy, e.g., is Arabic a tense language, and if so, how is tense expressed? (ii) What are the dominance relations between such categories on the hierarchy, e.g., where is Neg projected in the clausal hierarchy? (iii) How can this clausal hierarchy account for the possible word orders attested in Arabic dialects, e.g., the alternation between verb-initial (VS, henceforward) and nominal-initial (SV, henceforward) structures? In this section, I present and discuss ABC's analysis of these issues.

2.1. *Clause structure and the status of Tense in Arabic dialects*

There has been a debate as to the status of tense and how it is expressed in Arabic dialects. ABC argue that tense in Arabic is an abstract morpheme, T, that is not morphologically realized in the form of the verb.[1] In particular, they argue that verbal affixes in both the perfective and the imperfective verb forms are agreement markers only. I illustrate with examples from Egyptian Arabic (EA, henceforward).[2]

(1) a. katab-uu
wrote.3PL
'they wrote'

b. yi-ktib-uu
3-write-PL
'they write'

One main argument that ABC use in support of their claim that tense is an abstract category derives from the presence of negative and aspectual particles such as *laysa* and *laazaala* in SA, which inflect with perfective verb endings even though they occur exclusively in present tense contexts, as shown by the data in (2).[3]

(2) a. lays-uu fii l-bayt-i
NEG-3PL in the-house-GEN
'They are not in the house.'

b. laazal-uu fii l-bayt-i
still-3PL in the-house-GEN
'They are still in the house.'

ABC use this fact to argue that past tense cannot be expressed by the vocalic melody of the verb form in Arabic, as argued for in McCarthy (1979). Their point is that since both the negative and aspectual particles in (2) have the same

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1) Notice that while verbal morphology is exclusively suffixal with the perfective verb forms in (1a), it is both prefixal and suffixal with the imperfective verb form in (1b), a fact that ABC use in the book to support their analysis, as we will discuss later in this section.

2) The following abbreviations are used in the glosses of Arabic data: 1, 2, 3 for first, second, and third person, respectively; SG = singular; PL = plural; M = masculine; F = feminine; NEG = negation; FUT = future; ASP = aspect; COMP = complementizer; Q = question-particle; NOM = nominative; ACC = accusative; GEN = genitive; DAT = dative; EV = epenthetic vowel. Names of dialects are abbreviated as follows: SA = Standard Arabic; EA = Egyptian Arabic; LA = Lebanese Arabic; MA = Moroccan Arabic; PA = Palestinian Arabic; CEA = Cairene Egyptian Arabic.

3) ABC cite *laazaala*, but SA also has *maazaalaa*, which is used for the same function.

vocalic melody as "hollow" verbs in the perfective (verbs whose medial radical is underlyingly a glide, but appears as an [aa] vowel in the perfective, e.g., *naam-uu* (= slept-3PL)), it follows that the vocalic melody cannot express pastness, since the contexts in which these negative and aspectual particles occur are clearly present tense.

The same argument extends to the imperfective verb forms in the language, such as (1b) above. Such forms occur in a wide range of contexts that cannot be described in terms of a uniform temporal or aspectual property (cf. Benmamoun 2000); therefore, the imperfective verbal morphology cannot be the Spell-out of tense or aspect in Arabic, either. Interestingly, several of the modern Arabic dialects developed an aspectual morpheme that is used with imperfective verb forms to express different aspectualities. This is illustrated by *ta-* in Moroccan Arabic (MA, henceforward), *ʕam* in Lebanese Arabic (LA, henceforward), and *bi-* in EA. The last marker is illustrated in (3) below.

(3) bi-yi-ktib-uu EA
ASP-3-write-PL
'they are writing'

As ABC point out, this is further evidence that the imperfective verb morphology itself does not encode aspectual properties.

Thus, ABC conclude (p. 26), "tense in Arabic seems to be an abstract morpheme generated in T and the affixes observed on the verbs in Arabic are reflexes of agreement features."

There is, however, a crucial difference between the perfective and the imperfective when it comes to verb morphology, as noted in footnote (1): Whereas agreement is suffixal in the case of the former, it is both suffixal and prefixal in the case of the latter. To account for this asymmetry between the two forms, ABC argue that it is the result of the interaction between T and V in syntactic derivations: "while the abstract past tense T requires lexical support in Arabic, the present tense head, also an abstract head, does not" (p. 28). In more technical terms, while past tense T requires *raising* of a hosting category (typically V), present tense T does not induce a similar effect.

ABC choose to implement the distinction between past and nonpast verb forms in feature checking terms along the lines suggested in Chomsky's (1995) *minimalist program*. In particular, they propose that while past tense T is specified for both a [+D] and [+V] feature, present tense T is specified only for a [+D] feature. Under minimalist assumptions, the [+V] feature will attract V in past tense contexts, as in the partial structure in (4a) below. No such attraction takes place in present tense contexts for the simple reason that there is no [+V] feature on T, as shown in (4b).

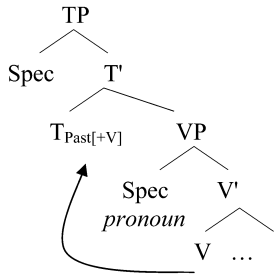
(4) a. Past tense structure: $[_{TP}\ T_{[+Past,\ +D,\ +V]}\ [_{vP}\ \ldots V \ldots]]$ (V raises to T to check its [+V] feature)

b. Present tense structure: $[_{TP}\ T_{[+Past,\ +D]}\ [_{vP}\ \ldots V \ldots]]$ (T has no [+V] feature to check, hence no raising takes place)

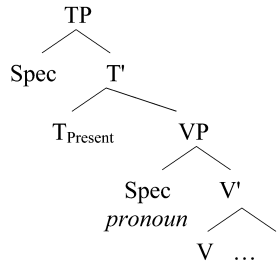
Following arguments presented in Benmamoun (2000), ABC argue that the proposed distinction in the derivation of past and present tense as in (4) above, explains four intriguing facts in Arabic dialects. I discuss each below.

The first fact, noted earlier, has to do with the contrast between perfective and imperfective verb forms when it comes to the realization of agreement morphology: only suffixation in the case of the former, but both suffixation and prefixation in the case of the latter.

(5) a.



b.



As the tree in (5a) shows, in past tense contexts, V raises to T, thereby rendering the pronoun in SpecVP a suffix. In present tense contexts, by contrast, no such raising takes place, and the person agreement marker appears as a prefix. ABC's analysis thus assumes that morphological Spell-out is the result of syntactic operations (or lack thereof) taking place in the syntax, rather than due to morphological rules applying in the mapping from the syntax to morphophonology.

Questions arise, however, with regard to how number and gender agreement is accounted for, and why certain imperfective forms, e.g., the first person forms *ʔa-drus* (= I study) and *na-drus* (= we study), are exclusively prefixal. But that aside, even under the assumption that number and gender agreement can be accounted for in structures such as those in (5), we run into an empirical problem when it comes to the previously mentioned negative and aspectual particles in (2) that ABC use to argue for their assumption that perfective verb morphology does not encode tensehood. We have seen that such particles denote a present tense interpretation. If so, then we do not expect them to raise to T. But this is obviously a problem to ABC's analysis, since such forms appear with suffixal endings, rather than the expected prefixal-suffixal morphology.

Of course, one can argue that these are special forms and they probably arose through some historical process (e.g., *laysa* is typically taken to be the result of incorporation of the negative morpheme *laa* and the extinct copula *ʔays* (Wright 1898), while *laazaala* is the result of incorporation between the same negative morpheme *laa* and the verb *zaala* (roughly, "to cease")). Notice, however, that if we do that, then ABC's earlier argument using such forms to argue that suffixal endings do not encode tensehood loses its force.

A second interesting fact cited by ABC in their argument for a derivational distinction between sentences with past tense T and those with present tense T comes from idiomatic expressions, or so-called *God wishes*, pointed out in Ferguson (1983) for Syrian Arabic. The observation is that idioms expressed with a perfective verb occur in the VS word order, whereas those with an imperfective verb form occur in the SV word order. Consider the following idioms from MA:

(6) a. raħm-u llah
blessed.3SGM-him God
'May God bless him.'

b. llah y-rəħm-u
God bless.3SGM-him
'May God bless him.'

ABC argue that this follows if V must raise to T in past tense contexts, but not in present tense contexts. While an interesting observation, it is not clear how robust it is. For one thing, such idioms tend to be frozen expressions, hence you wonder if the asymmetry is regulated by the syntax. More importantly, there are indeed opposite patterns: idioms where the VS order occurs with the imperfective, and idioms where the SV order occurs with the perfective. Consider the following two examples from EA:

(7) a. ya-rħam-u-kum ʔallaah
bless.3SGM-you God
'God bless you.' (Said to someone who has just sneezed.)

b. rabb-i-naa tawallaa-h
God-EV-our took.care.of.3SGM-him
Literally: 'God took care of him.' Idiomatically: 'He died.'

It is not clear how ABC's analysis can be modified to accommodate these cases.

Note, however, that Ferguson's original observation represents a tendency in the language, and not an exceptionless pattern, a topic which in itself is worthy of further investigation. Perhaps a statistical frequency study of the correlation between the idiom verb form and the word order observed in the

idiom can shed further light on whether or not this reflects a deeper syntactic distinction between past and present tense like the one ABC posit. So, while the presence of the counterexamples in (7) above does not in itself falsify the original observation nor ABC's argument, it simply shows that alternative patterns do exist, and that an account for such cases is still needed under ABC's analysis.

The third empirical argument used by ABC in favor of a syntactic distinction between past and present tense contexts has to do with negation patterns in modern Arabic dialects. In Cairene Egyptian Arabic (CEA), for example, past tense verb forms are typically negated with the circumfixal *maa…š* negation pattern (cf. 8a,b), while present tense forms are negated either via *maa…š* or the independent negation marker *miš* (cf. 8c,d).

(8) a. ʕumar maa-katab-š ʔil-gawaab
Omar NEG-wrote.3SGM-NEG the-letter
'Omar did not write the letter.'

b. *ʕumar miš katab ʔil-gawaab
Omar NEG wrote.3SGM the-letter

c. maa-bi-yiktib-š
NEG-ASP-write.3SGM-NEG
'He doesn't write/He is not writing.'

d. miš bi-yiktib
NEG ASP-write.3SGM
'He doesn't write/He is not writing.'

The asymmetry follows under ABC's analysis since V has to raise to T in past tense but not in present tense contexts. The *Head Movement Constraint* (HMC; Travis 1984) will ensure that V picks up Neg on the way to past tense T, hence accounting for the contrast between (8a) and (8b). In present tense contexts, no such movement takes place, and either negation pattern may occur, depending on whether or not V raises to Neg, thereby giving rise to either (8c) or (8d).[4]

The main problem with this empirical argument is that (8b) is actually perfect in Sharqeyyah Egyptian Arabic, as pointed out in Soltan (2007a, 2008). In addition, there is anecdotal and observational evidence from Egyptian children's speech showing an initial tendency to overgeneralize the use of the independent negation form *miš* (cf. Omar 1967) in past tense contexts. In other words, the grammar does generate such forms, and if ABC were right, that

[4] It is not clear under ABC's analysis what motivates V movement to Neg in present tense contexts, though.

should not be the case, under the assumption that the HMC is a universal principle. Since I dedicate Section 3 of this review to ABC's discussion of negation, I postpone a full evaluation of their proposal till then.

A final empirical argument for ABC's analysis comes from the fact that Arabic dialects allow so-called verbless copular sentences in the present tense. I illustrate here with EA data.

(9) a. Aħmad doktoor
Ahmad doctor
'Ahmad is a doctor.'

b. Aħmad taʕbaan
Ahmad tired
'Ahmad is tired.'

c. Aħmad fii ʔil-beyt
Ahmad in the-house
'Ahmad is at home.'

Under ABC's assumptions, if present T is not specified for a [+V] feature, no verbal host is needed, and the structure is allowed to surface as "verbless." In past tense contexts, by contrast, T requires a verbal host, and the copula is obligatorily present, as the data in (10) show.

(10) a. Aħmad kaan doktoor
Ahmad was.3SGM doctor
'Ahmad was a doctor.'

b. Aħmad kaan taʕbaan
Ahmad was.3SGM tired
'Ahmad was tired.'

c. Aħmad kaan fii ʔil-beyt
Ahmad was.3SGM in the-house
'Ahmad was at home.'

Notice, however, that in certain present tense contexts, typically those with an aspectual reading, the copula has to surface, contrary to what we expect under ABC's proposal. An example from EA is given in (11).

(11) Aħmad bi-yikuun taʕbaan lammaa bi-yirgaʕ min ʔil-šuɣl
Ahmad ASP-be.3SGM tired when ASP-return.3SGM from the-work
'Ahmad is (normally) tired when he comes back from work.'

Since T in (11) is not specified for a [+V] feature, it is unclear why the copula has to surface in such contexts.

In sum, while I agree with ABC that a distinction has to be made between past and present tense contexts in Arabic dialects, I do not think this has to be accounted for in terms of categorial features on T. Also, some of the empirical arguments that ABC cite in support of their analysis are counterexemplified either by cross-dialectal variation (e.g., negation in Sharqeyyah EA) or by the presence of constructions across Arabic dialects whose presence is rather unexpected under ABC's analysis (e.g., an overt copula in present tense contexts).

That said, I still believe that the main insight of ABC's analysis is indeed correct: perfective verb forms seem to occupy a higher position than the imperfectives. While ABC explicitly indicate that perfectives end up under T (or perhaps even higher), they do not explicitly indicate where the imperfective is actually spelled-out. There is perhaps a tacit assumption that if V is not under T, then V will appear in the default imperfective form. Remember, however, that imperfectives, like the perfectives, inflect for agreement, so we have to explain how this is possible. In the rest of this section, I choose to implement ABC's empirical generalization in terms of a clause structure which includes both Tense and Asp(ect) projections, and where past and nonpast T are distinguished in terms of whether or not they are φ-active, with consequences to head movement and word formation processes. Given space considerations, the proposal below is rather sketchy, but should be enough to illustrate the main idea.

There has been a long standing debate in Arabic linguistics regarding the status of Arabic as a tense-based or aspect-based language (see Mughazi 2004 and references therein). In Arabic traditional grammar, the distinction between the perfective and the imperfective seems to be based on "tensedness," as reflected in the labels they assign to each. While the perfective is called *ʔal-maaDii* (= literally, "the past"), the imperfective is referred to as *ʔal-muDaariʕ* (= literally, "the comparable [to a nominal]"). The labeling is suggestive in that it treats the imperfective as tense-inert, comparable to a nominal. This intuition as well as the tense-aspect debate can actually be captured if the language is assumed to have both tense and aspect categories, but that tense is syntactically prominent in certain grammatical contexts, while aspect is prominent in others, with syntactic prominence yet to be defined.

Along these lines, in Soltan (2007a), I propose a morphological distinction between past and nonpast T in Arabic dialects that has to do with φ-feature availability: past T is always specified for φ-features; present T is φ-inert. φ-features turn T affixal, hence in need of a host, resulting in the observed V-raising in past tense contexts that ABC argue for. Nonpast T, by contrast, has no φ-features, hence non-affixal, therefore allowing the verb to stay lower in the structure.

The main question now is: Where does the verb occur in nonpast contexts, and how does it get its agreement features in that case? This is where I believe that Asp plays a salient role in Arabic clause structure, a category that ABC seem to assume, though rather implicitly. In particular, I would like to argue that in the so-called present tense contexts, the verb appears under Asp, and it inflects for the agreement features on Asp. That Arabic Asp is φ-active is supported by multiple agreement patterns in compound tense constructions, as shown by (12) below from EA.[5]

(12) ʔil-wilaad kaan-uu bi-yilʕab-uu fii ʔil-gineynah
the-boys be-3PLM ASP-play-3PLM in the-garden
'The boys were playing in the garden.'

In structures such as (12), the main verb appears under Asp, showing φ-agreement and is spelled-out in the default non-tensed imperfective template. The auxiliary, by contrast, is the closest host to past T, hence appears in the tensed perfective form and inflects for φ-agreement as well. A partial structural representation is given in (13):

(13) $[_{TP}\ T_{[Past]\varphi}\ [_{AuxP}\ Aux\ [_{AspP}\ Asp_{\varphi}\ [_{VP}\ V\ \ldots]]]]$

When T is nonpast, by contrast, as in (14) below, the main verb still appears under Asp, and T, being φ-inert and nonaffixal, does not require a host, as shown in (15).[6]

(14) ʔil-wilaad bi-yilʕab-uu fii ʔil-gineynah
the-boys ASP-play-3PLM in the-garden
'The boys are playing in the garden.'

(15) $[_{TP}\ T_{[Nonpast]}\ [_{AspP}\ Asp_{\varphi}\ [_{VP}\ V\ \ldots]]]$

5) There can be disagreement on the "label" of the head involved, though. Some authors suggest that Arabic dialects allow recursive TP structure, with multiple T's (see, e.g., Fassi Fehri 1993 and Ouali and Fortin 2007). This is, however, orthogonal to the point made here, which is that compound tense constructions require the presence of multiple functional heads that are each specified for φ-features. In this review, I will continue to use the term Asp to refer to the head in question, since it seems to be more descriptively adequate for the cases discussed here. The argument made here, however, remains intact if the head turns out to be of a different category.

6) If carrying tense is taken to be the defining property of what a verbal category is, the intuition of traditional Arabic grammarians in referring to imperfective forms as "the comparable [to a nominal]" rather than as present tense forms is captured, as pointed out earlier in the section.

While this may seem like a notational variant of ABC's proposal, it clearly is not. On a conceptual level, it ties the distinction between past and nonpast T to the availability (or lack thereof) of φ-features, an observable property of the structure, which we can test empirically (e.g., in compound tense constructions). By contrast, categorial features such as [+D] and [+V] are not as observable at the interface, and as such are harder to justify in minimalist terms. The [+D] feature, for example, is sometimes argued to be the person feature on verbs (Benmamoun 2000), but this does not seem to be what ABC are assuming. As mentioned earlier, under their analysis, person agreement is argued to derive from a pronominal.

On the empirical level, the advantage of this analysis sketched here is that it does not run into any problems regarding the empirical facts discussed by ABC. First, the presence of God-wish idioms with perfective and imperfective verb forms in both SV and VS orders is expected. In VS perfective idioms, V is under T and the subject DP stays in the lexical domain, possibly Spec*v*P. In SV perfective idioms, V is under T and the preverbal DP is in a higher Spec (possibly SpecTP, or higher). In VS imperfective idioms, V is under Asp and the subject DP stays in the lexical domain, possibly Spec*v*P. In SV imperfective idioms, V is also under Asp and the preverbal DP is in a higher Spec (possibly SpecAspP, or higher). This is a good result, since the correlation between the type of verb form in the idiom and the word order observed is not exceptionless, as discussed earlier.

Second, the presence of an overt copula in sentences like (11) is also predicted under the assumption that such structures have an Asp projection. Since Asp, by assumption, has φ-features, a copula has to be inserted to host it. In verbless sentences with a stative interpretation (such as those in (9)), predication takes place internal to a small clause that contains both the subject and the predicate. There is no aspectual layer in that case. As a result, no copula needs to be inserted under Asp. Recall that in such contexts T is nonpast, hence φ-inert and nonaffixal, so no copula is needed under T, either. Verbless sentences are thus the result of a structure with a φ-inert T and an absent Asp.

Third, the negation patterns attested in modern Arabic dialects are also predicted. To see that, however, a full analysis of negation in these dialects is needed, which I discuss in detail in Section 3 below. Under that upcoming analysis, negation patterns are derived via morphological head movement, where notions such as affixality, adjacency, and the ability of a head to host negation are the only notions relevant. This should predict the spectrum of cross-dialectal variation in this regard: dialects that require past T to host negation will typically have the *maa…š* pattern with perfective forms (e.g., Cairene Egyptian Arabic); those that do not have such a requirement will allow the *miš*-pattern to occur with perfective verb forms (e.g., Sharqeyyah Egyptian Arabic

and child Egyptian Arabic); dialects that require Asp to host negation will typically use the *maa…š* pattern with all verb forms (e.g., Moroccan Arabic and Southern Egyptian Arabic); dialects that do not have such a requirement for Asp will allow both the *maa…š* and the *miš* patterns to occur with imperfective verb forms (e.g., Cairene Egyptian Arabic). While a fully syntactic analysis of such variation can be still formulated under ABC's analysis, it is only possible through the introduction of a set of categorial features on different heads in different dialects or even within the same dialect. If negation is viewed as a word-formation process, such theory-internal features are not needed. Only independently needed notions relevant to word-formation such as affixality, adjacency, and hosting-ability are needed.

Finally, the difference between perfective and imperfective forms with regard to the way agreement features are spelled-out is best understood in morphological rather than syntactic terms. While ABC do not explicitly indicate what theory of lexical insertion they assume, it seems from their discussion that the way agreement features are spelled-out reflects operations that happen in the syntax. An alternative is to assume the syntax is sensitive to abstract morphosyntactic heads and features in the structure, but that Spell-out of such features takes place in the mapping to morphology, along the lines suggested in Distributed Morphology approaches (Halle and Marantz 1993, among others). Under the alternative analysis proposed here, Spell-out of verbal morphology follows a simple algorithm: perfective verb forms are the Spell-out of V under past T; the imperfective surfaces otherwise.[7] That said, nothing in this analysis precludes the possibility of having agreement features represented as distinct heads with successive head movement picking up the affixes on the way to T and/or Asp. I will not discuss this possibility here, however.[8]

To sum up, while ABC's analysis of clause structure is essentially correct, once the role of Asp is considered in the language, the range of empirical facts they consider still follow, but without the need to make use of categorial features and without running into empirical problems regarding idiom behavior, negation patterns, verbless sentences, or the morphology of negative and aspectual particles.

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7) This is an approximation. There is also the case where perfective verb morphology surfaces with "perfect" aspect, where the temporal denotation is "past in the past." Clearly, under the approach to lexical insertion advocated here, this should not pose any problem.

8) Notice incidentally that the alternative analysis proposed here does not run into a problem accounting for why negative and aspectual particles such as *laysa* and *laazaala* carry perfective verbal morphology, even though they occur in present tense contexts. If agreement features are spelled-out in the morphology from abstract morphosyntactic features licensed in the syntax, such a small set of particles can have their own morphological Spell-out rules, as desired.

2.2. *Word order alternation, the subject-verb agreement asymmetry, and the status of "subject" in Arabic dialects*

In addition to the position of verb in syntactic structures, the position of subject has also received considerable attention in the literature on Arabic syntax. ABC provide a detailed discussion of different approaches in this regard, pointing out the complexity of that particular topic in the study of Arabic syntax.

Recall that Arabic dialects allow two main word orders: VS and SV, with the former being the unmarked order in Standard Arabic and the latter being the unmarked order in the modern dialects.[9] A major question regarding the VS-SV contrast has been whether the two orders are transformationally related or are derived from distinct underlying grammatical structures. Closely related to word order alternation is the topic of agreement asymmetry, frequently discussed in SA. To illustrate both word order alternation and the agreement pattern associated with each, consider the data in (16).

(16) a.	ʔal-ʔawlaad-u the-boys-NOM	qaraʔ-uu read-3PLM	ʔal-dars-a the-lesson-ACC	✓SV+full agreement
b.	qaraʔa read-3SGM	ʔal-ʔawlaad-u the-boys-NOM	ʔal-dars-a the-lesson-ACC	✓VS+partial agreement
c.	*ʔal-ʔawlaad-u the-boys-NOM	qaraʔa read-3SGM	ʔal-dars-a the-lesson-ACC	*SV+partial agreement
d.	*qaraʔ-uu read-3PLM	ʔal-ʔawlaad-u the-boys-NOM	ʔal-dars-a the-lesson-ACC	*VS+full agreement

As the data in (16) show, while SV orders show full agreement between subject and verb in all φ-features as can be seen in (16a), VS orders, by contrast, show only partial agreement, typically in gender features, with number always appearing as singular, as in (16b). Neither order can exhibit the agreement pattern of the other, as the ungrammaticality of (16c,d) show.

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9) Some modern dialects seem to be more tolerant of the VS order than others For example, ABC (pp. 46–47) report VS orders in Lebanese and Moroccan Arabic that sound odd to Egyptian speakers. Similarly, ABC report that the VOS order is possible in LA and MA, but it is definitely ruled out in EA. EA thus seems to be more rigid in its word order than other dialects, a topic that is worthy of investigation in itself, given that all these modern dialects have lost case morphology, whose presence has traditionally been tied to freedom of word order (e.g., SA, a case-inflecting language, allows the six possible permutations of S, V, and O).

There have been several analyses of the VS-SV alternation and the agreement asymmetry associated with it (see Mohammad 1990, 2000; Demirdache 1989; Fassi Fehri 1993; Aoun et al 1994; Benmamoun 2000; Harbert and Bahloul 2002; Soltan 2006, 2007a; among others). In this regard, I choose to focus on two main approaches to the issue: a movement approach, which assumes that the two word orders are related via movement, and a non-movement analysis, whereby the two word orders are derived as a result of two different base-generated structures.

A movement analysis (say, along the lines first proposed in Mohammad 1990, 2000) assumes that the SV order is derived via movement of the VP-internal subject to SpecTP, thereby giving rise to full agreement under the Spec-head configuration. The VS order, by contrast, surfaces when the VP-internal subject stays in situ, and SpecTP is occupied by a null expletive *pro*, which is, by assumption, third person masculine, therefore giving rise to the observed partial agreement.

Spec-Head Agreement

(17) a. SV: [$_{IP}$ Subj$_j$ V$_i$+I [$_{VP}$ t_j t_i …]]

Spec-Head Agreement

b. VS: [$_{IP}$ *pro*$_{EXPL}$ V$_i$+I [$_{VP}$ Subj t_i …]]

The contrast between the two derivations in (17) not only derives the correct word order, but also accounts for the status of the verbal agreement in each case.

An alternative analysis for the word order alternation assumes that the two structures are not related via movement; rather, they are derived from distinct underlying representations. This is essentially the traditional grammarians' analysis, revived in one form or another in the modern linguistic literature in Jelinek (1984), Demirdache (1989), Fassi Fehri (1993), and Soltan (2007a). I will refer to this approach as the left-dislocation (LD) analysis of word order alternation, since it assumes that preverbal DPs in the SV order are base-generated as dislocated elements in the left-periphery of the clause. Under some version of the LD analysis, the SV and VS structures in (16a,b) receive the syntactic representations in (18a,b), respectively, irrelevant details ignored.

(18) a. SV order: [$_{TopicP}$ DP Top [$_{TP}$ T [$_{vP}$ *pro* V…]]]

b. VS order: [$_{TP}$ T [$_{vP}$ DP V…]]

Under this version of the LD analysis, the agreement asymmetry follows from *pro* theory: the requirement that *pro* has to be identified by association with a head carrying φ-features (Rizzi 1982). Since the SV order always involves a *pro* subject under this LD analysis, full agreement is always required for *pro* identification. In the VS order, by contrast, no such requirement obtains, and absence of number agreement can be attributed to the presence of default T in this particular dialect of Arabic. Note that other dialects (e.g., MA and LA), as ABC point out, show full agreement in both orders, which follows if T in such dialects is φ-complete. What is unattested, however, is a dialect that shows partial agreement in the SV order, a fact predicted if the *pro*-based LD analysis presented above is indeed correct.[10]

In Soltan (2007a), I point out a number of empirical facts that favor the LD analysis over the movement analysis of word order alternation in SA. I mention three of these here.

First, the LD analysis, but not the movement analysis, can directly account for a well-established fact regarding the difference in interpretation between both word orders. In particular, SV orders have always been traditionally taken to represent *topic-comment* structures, involving what is sometimes called a "categorical" interpretation, whereby the preverbal DP is interpreted as topic of the discourse against which the event is presented, whereas their corresponding VS orders are assumed to denote the (default/unmarked) "thetic" interpretation, whereby an event is neutrally reported with the participants involved. If SV orders are derived via a regular operation of A-movement, along the lines we see in languages like English, for example, then their special interpretational status remains unexplained. Under the LD analysis, by contrast, this categorical interpretation is indeed what we expect, on par with other LD structures in the language.

Another challenge to the A-movement analysis of the SV order has to do with Case. More specifically, if a lexical DP can be assigned case VP-internally, as evidenced by the fact that it may stay in situ in the VS order (as in (16b), for example), it follows that movement of that DP to SpecTP is not induced

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[10] Another interesting agreement phenomenon that has received considerable attention in the generative literature on Arabic syntax is the so-called *first conjunct agreement* (FCA), which arises in VS orders. Space and time prevent me from providing a full discussion of this topic here. It is worth noting, however, that this is one area where work on Arabic syntax has enriched grammatical description and analysis, giving rise to further work on FCA as well as *last conjunct agreement* (LCA) in other languages. More recently, there has been an attempt to unify both FCA and LCA as *close conjunct agreement*. For data and analysis of this phenomenon, see Aoun et al 1994, Aoun et al 1999, Munn 1999, Harbert and Bahloul 2002, Soltan 2007b, Marušič et al 2007, Bošković 2009, Benmamoun et al 2009.

by the need to license Case. Suppose, then, that such movement is enforced by the presence of another feature on T, say, the widely assumed, though little-understood, EPP feature.[11] If so, we face an empirical problem with sentences introduced by the emphatic complementizer *ʔinna*, which assigns accusative case to the preverbal DP, as illustrated by (19).[12]

(19) ʔinna ʔal-ʔawlaad-a qaraʔ-uu ʔal-dars-a
COMP the-boys-ACC read-3PLM the-lesson-ACC
'(I affirm that) the boys read the lesson.'

If the preverbal DP is assigned nominative case (whether under government by T or Spec-head agreement with T), we are forced to assume a mechanism of case overwriting that allows such nominative case to be suppressed in favor of the accusative case assigned by *ʔinna*. Under the LD analysis, no such mechanism is needed. The preverbal DP in SV orders is assigned nominative case by default, a typical characteristic of topics in the language. However, in the presence of a lexical case assigner such as *ʔinna*, the preverbal DP will receive the accusative case assigned by that complementizer, and no default case is needed in such contexts.

A third empirical argument in favor of the LD analysis comes from SA structures where the preverbal DP is associated with an *overt* resumptive pronoun. This arises, for example, in constructions with verbs of deontic modality, e.g., *yaʒib* (= must), whose Experiencer arguments are PPs.[13]

(20) yaʒibu ʕala Zayd-in ʔal-raħiil-u
must.3SGM on Zayd-DAT the-leaving-NOM
'Zayd has to leave.'

If the Experiencer DP *Zayd* occurs preverbally, an overt resumptive pronoun has to appear cliticized onto the preposition within the PP.

(21) Zayd-un yaʒibu ʕalay-hi ʔal-raħiil-u
Zayd-NOM must.3SGM on-him the-leaving-NOM
'Zayd, he has to leave.'

The sentence in (21) is typically treated as a LD structure, where a resumptive pronoun in the thematic domain is associated with a peripheral DP. One reason

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11) The EPP stands for the *Extended Projection Principle*, first discussed in Chomsky (1981), as the requirement for clauses to have a subject, but is now used more often in the sense of a requirement of a head to have a specifier.

12) ABC discuss the properties of *ʔinna* in their discussion of the CP layer in Arabic (pp. 13–17).

13) Notice that in (20) the verb assigns nominative case to the Theme DP. For a more elaborate discussion of case and agreement facts in such structures, see Soltan (2007a).

why no movement can be involved in such structures is that the resumption site can be within an island. I illustrate here with the Complex NP island:

(22) Zayd-un yaʒibu ʕalaa ʔal-marʔat-i ʔallatii
Zayd-NOM must.3SGM on the-woman-DAT that.SGF
maʕa-hu ʔal-raħiil-u
with-him the-leaving-NOM
'Zayd, it is necessary for the woman that is with him to leave.'

If SV orders are derived via movement, then we have to make an exception for sentences with predicates of deontic modality since they clearly involve LD. If, alternatively, all SV word orders are treated as LD structures, then the behavior of deontic modality verbs is not surprising; in fact, it is exactly what we predict under such an analysis.

ABC provide a number of arguments against a LD analysis of the SV order, but their arguments do not seem to be relevant to the specific implementation presented here. I discuss these arguments below.

First, they argue that such an analysis would violate the Theta-Criterion given the presence of two external arguments. But this is obviously not the case in the structure in (18a). There is only one external argument, *pro* in Spec*v*P. The preverbal DP is in an A'-position and is interpreted as topic.

Second, ABC argue that such a LD structure would entail a violation of Binding Condition B, since the resumptive *pro* will be bound by the preverbal DP, which is again not the case, since the DP is in an A'-position, and *pro* is nothing but a resumptive pronoun typical of LD structures.

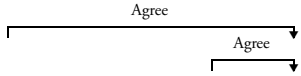
Third, ABC also argue that a LD analysis is problematic on case-assignment grounds, because T can only license one case. This is again unproblematic under the analysis proposed above, where only the subject in Spec*v*P is assigned structural case, with the preverbal DP getting nominative case by default, which is the case typically assigned to topics in the language.

A fourth argument against the LD analysis is formulated based on multiple agreement configurations in compound tense constructions noted earlier, but repeated here for convenience.

(23) ʔil-wilaad kaan-uu bi-yilʕab-uu fii ʔil-gineynah EA
the-boys be-3PLM ASP-play-3PLM in the-garden
'The boys were playing in the garden.'

ABC argue that if full agreement indicates the presence of a *pro* subject, then it follows from multiple agreement constructions such as those in (23) that there must be two *pro*'s in the sentence, which raises problems to the Theta-Criterion, Binding Condition B, and Case, as noted above. But this is not a

necessary assumption at all under the LD analysis. In fact, the LD analysis assumes that there is only one subject in that case, *pro* in Spec*v*P, and that both T and Asp acquire the φ-features of *pro*, say via the operation *Agree* (Chomsky 2000, 2001), hence giving rise to multiple agreement on both the auxiliary (spelled-out under T) and the main verb (spelled-out under Asp). A representation for the multiple agreement configuration is given in (24) below.



(24) [$_{\text{TopicP}}$ DP Top [$_{\text{TP}}$ T_{φ} [$_{\text{AuxP}}$ Aux [$_{\text{AspP}}$ Asp_{φ} [$_{v\text{P}}$ *pro* V…]]]]]

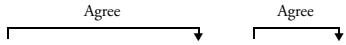
While the LD analysis does tie the presence of full agreement to the presence of *pro*, it does not by any means assume that the presence of multiple full agreement entails the presence of multiple instances of *pro*.

A potential problem for the LD analysis, however, arises with compound tense structures such as (25).

(25) kaan ʔil-wilaad bi-yilʕab-uu fii ʔil-gineynah
be.3SGM the-boys ASP-play-3PLM in the-garden
'The boys were playing in the garden.'

As ABC argue, in (25), a DP intervenes between the auxiliary, which shows partial agreement, and the main verb, which shows full agreement. There are two questions here: How can we account for the attested agreement pattern? How can the intervening DP be considered a left-dislocated element in that case?

For the first question, the LD analysis predicts exactly the observed agreement pattern, as the Agree relations in (26) show.



(26) [$_{\text{TP}}$ T_{φ} [$_{\text{AuxP}}$ Aux [$_{\text{AspP}}$ DP Asp_{φ} [$_{v\text{P}}$ *pro* V…]]]]]

Given locality conditions on Agree, Asp Agrees with *pro*, but T has no access to *pro*, since the DP (presumably in SpecAspP) is a closer target for agreement, thereby giving rise to partial agreement on T, but full agreement on Asp, as desired.

The answer to the second question depends on how we define a left-dislocated element. If it is defined in terms of the left periphery of the clause (i.e., the CP domain), then the intervening DP in (26) is not left-peripheral. But if the relevant notion is left-peripheral at a derivational cycle (say, a *phase* in the sense of Chomsky 2001), then it may be considered a left-dislocated element. This has been argued to be the case in object shift constructions in Scandinavian languages, for example, which can be viewed as some sort of

internal topicalization, since a shifted object typically signals given information. If this is correct, then structures such as (26) do not pose a problem to the LD analysis of word order in Arabic dialects.[14]

A final argument against the LD analysis provided by ABC is based on the fact that descriptively rich indefinite nominals as well as negative polarity items (NPIs) can actually occur in subject position. ABC cite the following examples from Palestinian Arabic (PA) and MA, respectively.

(27) a. walad Tawiil ʔadʒa PA
boy tall came.3SGM
'A tall boy came.'

b. ħətta waħəd ma-ʒa MA
even one NEG-came.3SGM
'No one came.'

This is only an apparent problem, however. The LD analysis does not claim that every preverbal nominal has to be interpreted as topic. While preverbal lexical DPs seem to behave like topics, that is not the case with all preverbal nominals. For example, quantified expressions, which are nonreferential, can readily occur in preverbal position, as in the following example from SA:

(28) kull-u Taalib-in qaraʔa ʔal-kitaab-a
every-NOM student-GEN read.3SGM the-book-ACC
'Every student read the book.'

If anything, this shows that the preverbal position may not be semantically uniform. It can host either a topic, a quantificational expression, or a descriptively rich indefinite nominal. These perhaps occupy different positions in the functional domain, depending on their information-structure strength.[15] The availability of different types of nominals to occur in preverbal position, however, does not constitute an argument against an LD analysis of the SV order. It simply indicates that the SV order is not only restricted to topic interpretations, but is perhaps tied to other information structure notions. In fact, as ABC point out, following Benmamoun (1996), NPIs in MA may occur in preverbal position because they include the "presuppositional" particle *ħətta*. Similar

[14] There is an implicit assumption here that AspP should be treated as a phase in Arabic dialects. I do not have empirical evidence to bear on this issue at the moment, however.

[15] One possibility is for quantificational expressions and descriptively rich indefinite nominals to occupy SpecTP, as a position for "weak" topics, as opposed to lexical DPs, which occupy SpecTopP and behave as "strong" topics.

analyses can be advanced for why the preverbal position can host weak topics such as descriptively rich indefinites or quantificational expressions. Why this is so and what position each type of nominal occupies in the hierarchical structure of the clause is an interesting and challenging topic that I hope future research will shed more light on. What is relevant here, however, is that the diversity of the elements that can occupy the preverbal position in the SV order is not incompatible with an LD analysis of such structures.[16]

In sum, there is strong empirical evidence that the word order alternation in SA and similar Arabic dialects is due to the SV order being a LD structure that does not involve movement at all.[17] In addition, the arguments that ABC raise against a LD analysis turn out to be either unproblematic to the particular implementation of the LD analysis proposed here, or can be reconciled with that analysis. In addition, the LD analysis derives the agreement asymmetry from an independently needed interface condition on the licensing of null subjects: *pro* has to be identified.[18] I conclude, then, that

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16) This approach may also have the advantage of explaining why some modern Arabic dialects changed to be primarily SV in word order, as the case is in EA, for example. The change could be the result of the LD structure becoming the unmarked structure in the language, with preverbal lexical DPs always construed as weak topics in SpecTP, on par with quantified expressions and descriptively rich NPs in SA.

17) It is worth noting that similar analyses have been proposed for other null subject languages that exhibit the SV-VS alternation. Arguments that the preverbal DP in Romance has A'-properties are given in Sola (1992), Barbosa (1994), and Zubizarreta (1999). The same has been argued for Modern Greek by Alexiadou and Anagnostopoulou (1998). The analysis proposed here for Arabic is more or less grounded in Jelinek's (1984) *pronominal argument hypothesis*, which Baker (1996, 2001) has argued can be used to account for word order in polysynthetic languages such as Mohawk.

18) ABC, building on Benmamoun (2000), argue that perhaps the subject-verb agreement asymmetry is not syntactic, but morphological. The gist of the analysis is that in the VS order the verb and the subject merge postsyntactically forming a prosodic unit. Since the number feature is already spelled-out on the subject, its presence on the verb becomes redundant. In the SV order, by contrast, no such merger takes place, and the verb has to spell-out the number feature. While relocating agreement to the morphology may have some advantages, it remains problematic, as ABC explicitly note. For one thing, person and gender, unlike number, have to be assumed not give rise to redundancy at Spell-out. The key problem, however, is that there is no evidence that the verb and the postverbal subject in the VS order form a prosodic unit. Almost any category can intervene between the two, e.g., a shifted object, an adverbial, or a PP. Finally, it remains a mystery why modern Arabic dialects that make use of the VS order exhibit full agreement in that order. So, while the proposal to treat agreement in the morphology is not implausible (in fact, in recent years, it has gained some popularity; see von Koppen 2005 and Bobaljik 2008, for example), it remains unclear how facts such as the agreement asymmetry may follow under such approaches. As ABC note, further research will help us determine if such an approach is indeed feasible. That said, the LD analysis advocated in this review does not seem to run into such problems nor does it require extra assumptions, apart from those independently needed (e.g., by *pro* theory).

the LD analysis is indeed on the right track in its account for word order in Arabic, and, by extension, for the subject-verb agreement asymmetry.[19]

3. The syntax of negation in modern Arabic dialects

Negation is another major topic that has received attention in the study of Arabic syntax, both in SA as well as the modern dialects. In this section, I focus only on ABC's discussion of negation patterns in modern dialects.

Many of today's Arabic dialects exhibit a two-pattern negation system: one where negation forms a unit with a hosting head, and one where negation surfaces as an independent morpheme without forming a unit with adjacent material. ABC refer to the first as "discontinuous" negation, and to the latter as "independent" negation. To illustrate, Cairene Egyptian Arabic (CEA), for example, uses the discontinuous *maa…š-pattern* with perfective verb forms, among other contexts, as in (29a), and the independent *miš-pattern*, in copular structures (29b), among other contexts.

(29) a. maa-saafir-t-i-š
NEG-traveled-1SG-EV-NEG
'I did not travel.'

b. Aħmad miš doktoor
Ahmad NEG doctor
'Ahmad is not a doctor.'

The generative literature on the morphosyntax of sentential negation in Arabic dialects (e.g., Eid 1993, Shlonsky 1997, Benmamoun 2000, Ouhalla 2002, among others) has typically focused on three main issues: (i) the conditions regulating the distribution of the two negation patterns; (ii) the position of negation in clause structure (higher or lower than T); and (iii) the status of the *-š* segment in the discontinuous pattern. I address each one of these issues in this section.

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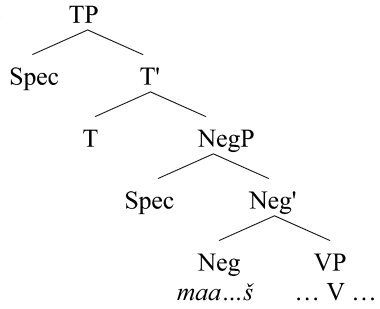
[19] An underlying assumption of the LD analysis is that Arabic dialects (or at least some) do not avail themselves of A-movement altogether. Rather, nominals are Merged in their surface position. While this is not the place to discuss why this is, it is worth noting that SA, for example, does not have prototypical A-movement structures. For example, subjects of passivized verbs may appear postverbally. Similarly, *seem*-type predicates subcategorize for a finite CP, and even when a DP precedes such predicates, they do not show agreement at all, an indication that such DPs are indeed LD-ed elements, obligatorily associated with a resumptive pronoun in the embedded CP. Finally, *want*-type predicates, which subcategorize for non-tensed (sometimes called subjunctive) clauses allow the embedded subject to appear either in postverbal or preverbal position, hence again indicating that A-movement is not required (and in fact, is perhaps unavailable altogether).

3.1. *Distribution of negation patterns in Arabic dialects: Syntactic or morphological?*

ABC, building on some of this earlier work, provide an analysis of negation in Arabic dialects whereby (i) negation patterns are derived in the syntax via head movement (or lack thereof); (ii) Neg is lower than T; and (iii) the *-š* segment is a subpart of a discontinuous Neg head. Under that approach, a skeletal structure of a negative sentence in Arabic dialects is along the lines of (30), ignoring irrelevant details.

(30)



The key assumption regarding ABC's account of sentential negation patterns in Arabic dialects is the previously discussed contrast between past and nonpast T. Since past T forces verb movement, and since Neg is lower than T, it follows, by the HMC, that perfective verb forms, like those in (29a), will always appear in the discontinuous pattern. By contrast, when T expresses present tense, as in the copular structure in (29b), there is no movement and Neg will be spelled-out as the independent form. Surface negation patterns thus reflect operations happening in the syntax—mainly head movement driven by the need to check features of T.

The main challenge to a syntactic account of negation along these lines is whether it is able to capture the wide range of variation at both the cross- and intra-dialectal levels. In particular, the proposed analysis predicts complementary distribution between both negation patterns, which is actually not the case. In fact, the two patterns of negation overlap in several grammatical contexts. To illustrate, consider the case of CEA. While discontinuous negation occurs with perfective verb forms, as in (29a), it can also be hosted by the present tense aspectual imperfective (31a), pronominals (31b), the indefinite noun *ħad* (31c), existential expletives (31d), and PPs whose complement is a pronominal (31e).

(31) a. maa-ba-saafir-š kətiir
NEG-ASP-travel.1SG-NEG much
'I don't travel much.'

b. maa-huu-š/maa-huwwa-a-š doktoor
NEG-3sg-NEG/NEG-3SG-EV-NEG doctor
'He is not a doctor.'

c. maa-ħad-i-š gih
NEG-someone-EV-NEG came.3SGM
'Nobody came.'

d. maa-fii-š ħad hinaa
NEG-in.it-NEG someone here
'There is nobody here.'

e. maa-ʕand-ii-š ʕarabiyyah
NEG-at-me-NEG car
'I don't have a car.'

Similarly, the occurrence of the independent negation marker *miš* is not only confined to copular structures. Rather, it occurs optionally with the present tense aspectual imperfective (32a), and obligatorily with future verb forms (32b), and less preferably with copular structures with predicate PPs (32c).

(32) a. miš ba-saafir kətiir
NEG ASP-travel.1SG much
'I do not travel much.'

b. miš ħa-saafir
NEG FUT-travel.1SG
'I will not travel.'

c. ? miš ʕand-ii ʕarabiyyah
NEG at-me car
'I don't have a car.'

On the other hand, from a cross-dialectal perspective, certain categories are able to host negation, but others are not. For example, while nominals and adjectives in CEA cannot host negation, they can do so in MA (and Southern Egyptian Arabic as well; cf. Khalafallah 1969).

(33) a. *Aħmad maa-doktoor-š EA
Ahmad NEG-doctor-NEG

b. *Aħmad maa-taʕbaan-š EA
Ahmad NEG-tired-NEG

(34) a. huwa maa-fəllaħ-š MA
he NEG-farmer-NEG
'He is not a farmer.'

b. huwa maa-Twil-š MA
he NEG-tall-NEG
'He is not tall.'

If this line of reasoning is correct, it suggests that the choice between the two negation patterns is in fact morphologically conditioned. First, the negation marker is affixal, hence in need of a host. Second, that host has to be adjacent to the negative marker. Third, certain elements can host the circumfixal negative morpheme (verbs, pronominals, PPs whose complement is a pronominal), while others cannot (nominals, adjectives, and PPs whose complement is a lexical DP). Affixality, adjacency, and ability to host a bound morpheme, are best understood if the operation involved is morphological, not syntactic. Any attempt to characterize the distribution of negation patterns in CEA in terms of the constructions involved or the temporal/aspectual properties of sentences will, therefore, always run into serious problems accounting for the overlap of the two patterns. It is clear then that the distribution of the two negation patterns is not tied to a binary contrast between verbal and nonverbal, or past T and nonpast T. Rather, it seems to be tied to whether a certain category can function as a host for negation, a morphological condition. A syntactic account that tries to find a unifying feature that underlines each pattern in all of its contexts will most probably encounter a serious challenge, since both patterns do share a number of these grammatical contexts.

The debate on how to deal with negation in Arabic dialects also seems important theoretically, since it can shed light on the status of head movement (HM) in the grammar. For example, it has been recently argued that HM should not be part of the syntax proper; rather, it is better understood as a morphological operation (cf. Chomsky 2001, Boeckx and Stjepanović 2001).[20] Several conceptual problems have also been pointed out regarding the position of HM in the syntax. For one thing, it seems hard to motivate within a

[20] In Soltan (2007a, 2008), I argue that certain aspects of HM, specifically those that have a formal feature licensing flavor to them, are better derived in the syntax. In particular, I propose an Agree-based analysis for the paradigms of inflecting negatives, complementizer alternation in embedded clauses, as well as person-less imperatives in Standard Arabic. For a more recent discussion of the status of HM in minimalist syntax, see Roberts (2010).

paradigm of research that takes movement to be "last resort," such as the minimalist program. While using categorial features such as [+V] to drive HM can do the trick, it remains hard to justify within a minimalist framework that takes language design to satisfy interface conditions, and where it is not clear what the interface value of such categorial features is. Even worse is that categorial features have been argued to create the so-called "traffic rule" problem (Chomsky 2001): the need to regulate feature checking operations, such that, for example, the [+V] feature on T is checked via head movement of a verb, but the [+D] feature is checked via phrasal movement of a DP to SpecTP, rather than the other way around (i.e., by moving VP to SpecTP and D to T). Under a morphological approach to HM as a word-formation process, however, no such conceptual problems arise, since the movement is driven by the morphological features of some of the heads involved, e.g., their affixal nature.

I conclude then that an analysis of negation in Arabic dialects in terms of syntactic HM is not only hard to motivate under minimalist assumptions, but it will most likely involve the invocation of a set of *ad hoc* features to generate the attested patterns, and filter out the unacceptable ones. A morphological analysis in terms of the affixal properties of functional heads, the hosting-ability of different syntactic categories, as well as any language-particular morphological rules and/or constraints, is thus to be preferred on both conceptual and empirical grounds. While an elaborate implementation of such a morphological analysis is obviously beyond the scope of this review, I will summarize that approach in terms of a morphological algorithm at the conclusion of this section.

3.2. *Where is Neg on the clausal hierarchy?*

The second issue in the syntax of negation in Arabic dialects has to do with the position of Neg in clausal structure. As pointed out earlier, ABC, among others (see Benmamoun 2000 and Ouhalla 2002, for example) argue for a hierarchy where Neg is lower than T. I will refer to that as the *low-Neg* analysis. An alternative structure is one where Neg is actually higher than T, as proposed in Diesing and Jelinek (1995) and Soltan (2007a). I will refer to this as the *high-Neg* analysis. While a good range of empirical facts can be accounted for under either analysis, there are certain attested negation patterns across Arabic dialects that pose a problem to the low-Neg analysis. I discuss two of these here.

A first argument against the low-Neg analysis is that it fails to account for dialects where the independent negation pattern is actually attested with perfective verb forms, a possibility that is predicted to be unattested under a

low-Neg analysis, as ABC point out (p. 99). One such dialect is spoken in some areas of the Sharqeyyah province in northern Egypt, where sentences like (35) are perfect:[21]

(35) ʔanaa miš ləʕib-t Sharqeyyah Egyptian Arabic
I NEG played.1SG
'I did not play.'

Now, if Neg is lower than T, then there is no way to derive the sentence in (35) without V skipping over Neg on its way to T, followed by Neg moving over the T complex, to generate the right word order. Both movements violate the HMC, as noted earlier. In addition, it is not clear how to motivate Neg-movement in that context. In brief, negation in such dialects is simply underivable under standard assumptions, if Neg were indeed below T.

By contrast, if Neg is higher than T, all we need to assume is that in this dialect Neg is not required to merge morphologically with a T specified for past tense, thereby giving rise to the *miš*-pattern instead. In most Egyptian Arabic dialects, however, this is not a possible sentence, since Neg is always required to merge with an adjacent T that is specified for past tense. Under the morphological analysis of negation, the locus of cross-dialectal variation has to do with whether a head is required to host negation or not.

A second argument in favor of a high-Neg analysis and against the low-Neg analysis comes from anecdotal and observational evidence from Egyptian children's speech showing that this particular type of negation in (35) is rather common among children early on in their acquisition of negation in Egyptian Arabic (cf. Omar 1967). This means that there is a stage in negation acquisition where children overgeneralize the use of the *miš*-pattern to all verb forms. If Neg is lower than T by default, as it is assumed under the low-Neg analysis, these utterances by children are very surprising, given that the HMC is a universal principle of grammar. Under the high-Neg analysis, an explanation is readily available: Children start by assuming that Neg is nonaffixal, hence is not required to merge with an adjacent T specified for past tense. Later on, they will realize based on positive evidence in the primary linguistic data that Neg has to conflate with past tense T, and the circumfixal negation pattern will replace these early utterances of the *miš*-pattern.

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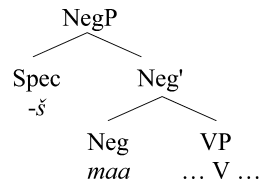
21) As usual, I am using a general term to describe the dialect, which is spoken in the province of Sharqeyyah in Lower Egypt. Needless to say, not everyone in that province uses that negation pattern. Also, due to certain sociolinguistic pressures, some speakers of this dialect tend to avoid using that pattern in adulthood when communicating with speakers of other EA dialects.

To sum up the discussion in this subsection, there is strong empirical evidence from negation patterns in Sharqeyyah Egyptian Arabic as well as negative utterances by Egyptian children in the early stages of language acquisition that Neg has to be higher than T in CEA clause structure, and presumably in all other Arabic dialects.[22]

3.3. *The status of -š*

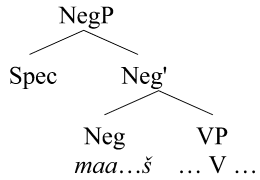
The third major issue in the syntax of negation in Arabic modern dialects has to do with the status of the *-š* segment, which appears in both patterns (as a suffix in discontinuous negation, and as a subpart of the independent negation marker). One potential analysis is along the lines suggested for bipartite negation in languages like French (cf. Pollock 1989, Ouhalla 1990, and Moritz and Valois 1994), where the preverbal negation marker is the head of NegP and the postverbal marker is its Spec, as in (36).

(36)



ABC, however, argue against such an analysis. Instead, they adopt Benmamoun's (2000) discontinuous Neg account, whereby both negative segments are generated under one head.

(37)



ABC note that "this analysis may not be elegant" (p. 106), but they argue that it allows us to account for the variation attested in negation patterns in Arabic

[22] The underlying assumption here is that the position of Neg is parametric: Some languages have Neg higher than T; others have T lower than Neg. Traditionally, it has been assumed that languages with preverbal negation (e.g., Spanish and Italian) select the first option, while languages with postverbal negation (e.g., English and German) select the latter. CEA and most Arabic dialects have preverbal negation, hence they are expected to pattern with the first type, as argued here.

dialects (e.g., that some dialects mark negation with *maa* only, while others use *-š* only). It is not clear, however, that the analysis in (36) cannot do the same. For example, dialects that mark negation with *maa* only simply do not project a SpecNegP, while those that mark negation with *-š* have lost *maa* as a negative head and instead treats the *-š* as head of NegP.

Furthermore, there is in fact one empirical domain where treating *-š* as Spec of NegP seems more promising than treating *-š* as a subpart of a discontinuous Neg head, that is, licensing of negative polarity items (NPIs). Without getting into a detailed discussion, it has been frequently noted (Benmamoun 1997, 2006; Bahloul 1996) that in some Arabic dialects the *-š* segment is in complementary distribution with NPIs. Consider, for example, these MA examples from Benmamoun (2006).

(38) a. ma-qrit(*-š) ħətta kitab
NEG-came.3SGM even book
'I didn't read any book.'

b. ma-ža(*-š) ħətta waħəd
NEG-came.3SGM even one
'No one came.'

c. ħətta waħəd ma-ža(*-š)
even one NEG-came.3SGM
'No one came.'

d. Nadya ʕɔmmər-ha ma-žat(*-š)
Nadya ever-her NEG-came.3SGF
'Nadya never came.'

e. Omar baqi ma-ža(*-š)
Omar yet NEG-came.3SGM
'Omar hasn't come yet.'

Under the Spec-analysis of *-š*, this fact can receive a straightforward explanation: If both the NPI and *-š* compete for SpecNegP (either overtly or covertly), their complementary distribution follows. The discontinuous Neg analysis, however, does not have a natural way of explaining this fact. First, it has to assume a rule at the sub-morphemic level; and second, that rule has to target only the *-š* segment but not the *maa*. NPI facts thus seem to suggest that treating *-š* as Spec of NegP has direct empirical consequences than treating it as a subpart of a discontinuous Neg head.

My conclusion, however, is not to adopt the SpecNegP analysis. The reason is that the same NPI facts that support it also provide evidence against it. In EA, for example, NPI licensing does not correlate with *-š* disappearance,

except in the case of the NPI ʕ*umr* (= "ever;" literally= "life/age") when it occurs in pre-negative (but not when in post-negative) position.

(39) a. ʕumr-ii maa-saafir-t(*-š) Masr
ever-my NEG-traveled-1SG-(*NEG) Egypt
'I have never travelled to Egypt.'

b. maa-saafir-t*(-š) Masr ʕumr-ii
NEG-traveled-1SG-*(NEG) Egypt ever-my
'I have never travelled to Egypt.'

Other NPIs, like *lissah* (= yet), requires the presence of *-š*, whether it occurs before or after negation, as shown in (40a,b).

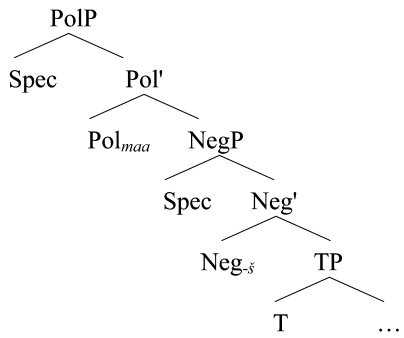
(40) a. Mona lissah maa-saafir-it-*(š)
Mona yet NEG-traveled-3SGF-*(NEG)
'Mona has not travelled yet.'

b. Mona maa-saafir-it-*(š) lissah
Mona NEG-traveled-3SGF-*(NEG) yet
'Mona has not travelled yet.'

While this is not the place to explain the asymmetry in behavior between ʕ*umr* and *lissah*, in Soltan (2011b), I take that as evidence against the SpecNegP analysis of the *-š* segment. Another argument, though a theory-internal one, has to do with whether or not multiple specifiers of a single head are allowed. In a framework that allows multiple specifiers (e.g., Chomsky 1995), an explanation for the complementary distribution between two elements in terms of their "competing" for a single Spec position does not hold any more. For the problem at hand, that means that we can have both *-š* and the NPI both Merged in two distinct specifiers of the negative head without violating any syntactic principle of phrase structure.

To account for the NPI facts as well as the morphosyntax of negation in Arabic dialects in general, I would like to propose a *Split-Neg analysis*, along the lines of what has been suggested recently in work on negative concord by Zeijlstra (2004, 2008). Under such an analysis, both *maa* and *-š* are separate heads (called Pol and Neg, respectively) located higher than T, but only *maa* is specified for semantic negation, while *-š* is merely formally negative (a property it probably acquired diachronically). The presence of a formally negative head does not induce a double negation reading in the same way that the presence of a negative concord item does not lead to a double negation interpretation, either. An abstract structural representation of a negative sentence in Arabic dialects that have bipartite negation is given below, ignoring irrelevant details up and down the tree:

(41)



There are several advantages for that analysis. One is that it allows us to formulate a rule to target *-š* for deletion in NPI contexts, which is not possible under the discontinuous Neg head analysis. Second, the rule can be either sensitive to the NPI involved (EA) or nonsensitive at all (MA), thereby accounting for the range of dialectal variation attested.[23] Third, and perhaps most importantly to the topic of this section, the analysis allows us to formulate a morphological algorithm for negation patterns in Arabic dialects, one along the lines of (42) below, where "hosting head" is the key notion for dialectal variation.

(42) a. In contexts where Neg is adjacent to a hosting head *H*, *H* moves to Neg and then to Pol, and the circumfixal *maa-H-š* pattern arises.
b. Otherwise, Neg incorporates into Pol, giving rise to the *miš*-pattern.

To illustrate from the contrast between perfective verb forms and prospective imperfective forms (cf. the examples in (29a) and (32b), respectively), the two negation patterns are derived as follows, irrelevant details aside:

(43) a. [$_{\text{PolP}}$ Pol [$_{\text{NegP}}$ Neg [$_{\text{TP}}$ T$_{[+\text{PAST}]}$ [$_{v\text{P}}$ *v* [$_{\text{VP}}$ V …]]]]] → [*maa-saafirit-i-š*]

b. [$_{\text{PolP}}$ Pol [$_{\text{NegP}}$ Neg [$_{\text{TP}}$ T$_{[-\text{PAST}]}$ [$_{\text{AspP}}$ Asp [$_{v\text{P}}$ *v* [$_{\text{VP}}$ V …]]]]] → [*miš ħa-saafir*]

Reasons of space do not allow me to illustrate how the algorithm in (42) derives all the negation facts discussed in ABC's book and in this review, so I will leave that an exercise for the reader, hoping that such a proposal would lead to further future discussions in print.

To sum up, in this section I discussed ABC's analysis of sentential negation in modern Arabic dialects by focusing on the three major issues that have

23) In Soltan (2011b), I provide a principled account for why the NPI *ʕumr* behaves differently from all other NPIs in CEA on the basis of synchronic and diachronic evidence.

repeatedly been discussed in the relevant literature: the regulation of the distribution of negation patterns, the position of Neg in clause structure, and the status of the *-š* segment. While ABC's analysis of negation does account for a range of facts in Arabic dialects, I have also shown that there are empirical facts that remain problematic under such an analysis. Instead, I have entertained an analysis whereby the distribution of negation patterns is morphologically conditioned, negation is higher than T in the clausal hierarchy, and that, in Arabic dialects with bipartite negation, negation is expressed by two heads (Pol and Neg), one for semantic negation (*maa*), and the other is only formally negative (*-š*). It is my hope that by introducing such an analysis, further linguistic investigation of negation in Arabic dialects will bear on the issues raised in ABC's discussion as well as in this section.

4. The syntax of wh-questions in Arabic dialects

ABC dedicate a chapter to the discussion of the syntax of wh-interrogatives, a topic that has also received frequent attention from linguists working on Arabic dialects (e.g., Wahba 1984 and Cheng 1997 for EA; Aoun and Choueiri 1998 and Aoun and Li 2003 for LA; Wahba 1991 and Ouhalla 1996 for Iraqi Arabic; and Shlonsky 2002 for Palestinian Arabic). In this section I focus on the discussion of three main issues highlighted by ABC's chapter on wh-questions: First, the fact that Arabic dialects utilize multiple strategies of question-formation; second, how wh-scope is licensed with each strategy; and, third, in what way (if any) these multiple strategies are interpreted in the mapping from the syntax to the semantics/pragmatics interface.

4.1. *Strategies of question-formation in Arabic dialects and licensing of wh-scope*

ABC point out four strategies for the formation of wh-questions in Arabic dialects, with cross-dialectal variation relating to how many of these strategies a particular dialect uses. The four strategies are illustrated in (44) with data from LA, a dialect that is claimed to exhibit all four (ABC: 128):[24]

(44) a. ʔayya mmasil šəft b-l-maTʕam? *Gap strategy*
which actor saw.2SGM in-the-restaurant
'Which actor did you see in the restaurant?'

[24] LA exhibits an asymmetry between the gap-strategy and the resumptive-strategy when it comes to the type of wh-word involved. While all wh-words can be used in gap questions, only *ʔayy*+NP (= which+NP) and *miin* (= who) can occur in resumptive interrogatives. I will not dwell on this issue in this review, however.

b. ʔayya mmasil šəft-o b-l-maTʕam? *Conventional resumptive strategy*
which actor saw.2SGM-him in-the-restaurant
'Which actor did you see in the restaurant?'

c. miin (ya)lli šəft-o b-l-maTʕam? *Class II resumptive strategy*
who that saw.2SGM-him in-the-restaurant
'Who is it that you saw in the restaurant?'

d. šəft ʔayya mmasil b-l-maTʕam? *In-situ strategy*
saw.2SGM which actor in-the-restaurant
'Which actor did you see in the restaurant?'

EA, by contrast, uses the in-situ and Class II resumptive strategies (as in (45a,b), respectively), but never the gap strategy (45c). The conventional resumptive strategy, as in (45d), is very marginal, if grammatical at all, and is typically allowed only with *D(iscourse)-linked* wh-phrases such as *ʔanhii* (= which).

(45) a. ʔinta šuft miin ʔimbaariħ?
you saw.2SGM who yesterday
'Who did you see yesterday?'

b. miin ʔilli ʔinta šuft-u-h ʔimbaariħ?
who that you saw.2SGM-EV-him yesterday
'Who is it that you saw yesterday?'

c. *miin ʔinta šuft ʔimbaariħ?
who you saw.2SGM yesterday
'Who did you see yesterday?'

d. *miin/? ʔanhii mumassil ʔinta šuft-u-h ʔimbaariħ?
who/which *actor* you saw.2SGM-EV-him yesterday
'Who did you see yesterday?'

SA, by contrast, uses all strategies except the in-situ strategy.

(46) a. man raʔay-ta ʔams?
who saw.2SGM yesterday
'Who did you see yesterday?'

b. man raʔay-ta-hu ʔams?
who saw.2SGM-him yesterday
'Who did you see yesterday?'

c. man ʔallaðii raʔay-ta-hu ʔams?
who that.SGM saw.2SGM-him yesterday
'Who is it that you saw yesterday?'

d. *raʔay-ta man ʔams?
saw.2SGM who yesterday

The multiplicity of question-formation strategies within a particular dialect as well as the variation in which strategies each dialect uses presents a rich area of research in Arabic linguistics and should have wide implications for the study of the syntax (and semantics/pragmatics) of wh-questions in natural language. One main question in this regard has to do with the underlying syntax associated with each one of these different strategies. The gap strategy, common in human languages, has typically been analyzed via movement of the wh-phrase from its argument position to a position in the left-periphery of the clause, typically SpecCP. One argument for a movement analysis comes from the fact that wh-dependencies are sensitive to islandhood (in the sense of Ross 1967), as ABC show, for example, with data from LA. The same island-sensitivity does not arise, however, with the resumptive strategy. I illustrate below with ABC's data from the relative clause island in LA.

(47) a. *miin btaʕrfo l-mara yalli zeerit
who know.2PL the-woman that visited.3SGF
'Who do you know the woman that visited?'

b. miin btaʕrfo l-mara yalli zeerit-o
who know.2PL the-woman that visited.3SGF-him
'Who do you know the woman that visited him?'

Like resumptive wh-questions, in-situ wh-questions, the default strategy in EA, are not sensitive to islandhood, as shown in Soltan (to appear). I illustrate this with data from the relative clause and the adjunct islands.

(48) a. ʔinta ʔaabilt ʔil-bint ʔilli ʔitgawwizit miin?
you met.2SGM the-girl that married.3SGF who
'Who$_i$ did you meet the girl that got married to him$_i$?'

b. Huda mišyit ʔabl-maa ʔaḥmad yiʔaabil miin?
Huda left.3SGF after-that Ahmad meet.3SGM who
'Who$_i$ did Huda leave after Ahmad met him$_i$?'

To sum up the discussion so far, while questions formed by the gap strategy can be argued to be derived via movement, questions formed by the resumptive and in-situ strategies cannot be derived in the same way. This raises the interesting question of how wh-scope is licensed in these latter cases. ABC choose to adopt Shlonsky's (2002) analysis of Class II resumptives, whereby the relation between the wh-word and the resumptive pronoun is mediated via

two predication relations: one between a null *pro* heading a free relative and the following CP, and the other between two DPs forming an identificational relation.

(49) [IP wh-word [DP *pro* [CP *Op* ʔilli/lli/yalli [IP …]]]]

The structure is rich, hence rather complex, and it is not clear if it is indeed required by the semantics of these questions. The fact is Class II resumptives are, for all intents and purposes, cleft structures. The cleft analysis of ex-situ constructions was first proposed in Cheng (1997), and there is good empirical evidence that it is indeed the correct analysis, given a set of structural parallelisms between Class II resumptive questions and cleft constructions in the language. I illustrate below with data from EA.

First, Class II resumptive wh-questions involve the obligatory use of the complementizer *ʔilli*, as well as an (optional) overt pronominal copula, both of which are typical characteristics of cleft constructions in EA. Both properties are illustrated below in (50a), a standard cleft structure in EA, and (50b), a clefted wh-question:

(50) a. ʔil-walad dah (huwwa) ʔilli Darab ʕali
the-boy this COP that hit.3SGM Ali
'It is this boy that hit Ali.'

b. miin (huwwa) ʔilli Darab ʕali?
who COP that hit.3SGM Ali
'Who is it that hit Ali?'

Second, Class II resumptive questions can also give rise to pseudo-cleft constructions, whereby the clefted wh-phrase appears in final position:

(51) a. ʔilli Darab ʕali (huwwa) ʔil-walad dah
that hit.3SGM Ali COP the-boy this
'[The person] Who hit Ali is this boy.'

b. ʔilli Darab ʕali (huwwa) miin?
that hit.3SGM Ali COP who
'Who is it that hit Ali?'

Third, since adverbials and PPs cannot be clefted in EA, wh-adjuncts cannot occur in Class II resumptive questions, either:

(52) a. *ʔimbaariħ (huwwa) ʔilli ʔil-walad dah Darab ʕali
yesterday COP that the-boy this hit.3SGM Ali
Intended reading: 'It was yesterday that this boy hit Ali.'

b. *ʔimtaa (huwwa) ʔilli ʔil-walad dah Darab ʕali
when COP that the-boy this hit.3SGM Ali
Intended reading: 'When was it that this boy hit Ali?'

If clefts involve a DP in a Foc(us) projection modified by a CP, as traditionally assumed, the syntax of Class II resumptives follows straightforwardly, as in the syntactic representation in (53) for the wh-question in (45b), where the wh-phrase is in a focused position, unselectively bound by an empty operator in C (see the discussion below for unselective binding).

(53) [$_{CP}$ *Op$_i$* [$_{FocP}$ *miin$_i$* [$_{CopulaP}$ Copula [$_{CP}$ ʔilli [$_{TP}$ ʔinta šuft-u-*h$_i$* ʔimbaariħ]]]]]

As for the syntax of wh-in-situ constructions, ABC discuss two possible approaches to licensing scope in such structures. The first is that adopted by Aoun and Li (1993), where in-situ languages like Chinese and wh-movement languages like English differ with regard to status of a wh-phrase: in the former languages, wh-phrases are variables; in the latter, they are operators. Operators have to move, but variables do not. Evidence for the variable status of wh-phrases in Chinese comes from the fact that wh-phrases also function as indefinite pronouns in the language, which is obviously not the case in English (cf. *who* vs. *someone*). For example, the wh-phrase *shenme*, which means *what* in Chinese, also functions as an indefinite pronoun in the language, as shown in (54).

(54) Ta bu xihuan shenme
he not like what
'He does not like anything.'

Arabic dialects, however, do not pattern with Chinese in this regard. Wh-phrases cannot be used as indefinites (e.g., *miin* (= who) and *ʔeiħ* (= what) in EA can only be used as wh-phrases). The only exception is the wh-word *ʔayy* (= which), which is homophonous with the word for "any," at least in SA and LA. There is also typological evidence that militates against the correlation between wh-in-situ and the dual nature of wh-words as question words and indefinite pronouns, as argued in Bruening (2007).[25]

The second approach discussed by ABC is that of Ouhalla (1996), who proposes to reduce wh-dependencies to Binding Theory. The analysis is empirically problematic, as ABC note, given that it does not make the right predictions for

[25] Bruening provides typological evidence for languages that robustly use the gap strategy, even though their wh-words function as indefinites, and for wh-in-situ languages where wh-words are never used as indefinites.

SA. Furthermore, on a conceptual level, it is not clear what the status of Binding Theory is in the current framework. Reducing cross-linguistic variation in wh-questions to binding thus does not seem to have an appealing explanatory force.

An alternative approach not discussed by ABC is the *unselective binding* approach, first proposed in Heim (1982) and Pesetsky (1987). Under this approach, wh-scope is licensed via an operator in C which binds the in-situ wh-phrase, as in the following representation for the EA in-situ question in (45a).[26]

(55) [$_{CP}$ Op_i [$_{TP}$ ʔinta šuft $miin_i$ ʔimbaariħ]]

Interestingly, EA, which uses the in-situ strategy as default, also differs from other Arabic dialects in optionally allowing an overt Q(uestion)-particle initially in wh-questions.[27]

(56) a. huwwa ʔinta šuft miin ʔimbaariħ?
Q.3SGM you saw.2SGM who yesterday
'Who did you see yesterday?'

b. huwwa miin ʔilli ʔinta šuft-u-h ʔimbaariħ?
Q.3SGM who COMP you saw.2SGM-EV-him yesterday
'Who is it that you saw yesterday?'

Recall also that EA does not tolerate gaps in wh-questions; resumption is obligatory.

EA thus differs from other Arabic dialects in three respects: (i) it is an in-situ language by default; (ii) it requires resumption in non-in-situ questions; and (iii) it can use an overt question particle in wh-questions. An analysis of the syntax of wh-questions not only needs to account for these three properties, but should preferably correlate them together. One possible hypothesis is along the following lines: By developing a Q-particle in its grammar, EA, as opposed to other dialects, became able to license wh-scope at a distance,

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26) Reinhart (1998) points out potential pitfalls with the unselective binding approach, proposing instead an analysis of wh-in-situ in terms of the mechanism of choice functions. Whatever the correct mechanism turns out to be, what is relevant to the discussion here is that such a mechanism does not involve movement.

27) Notice that the Q-particle *huwwa* is homophonous with the pronominal copula. Eid (1992) uses that fact to argue that yes-no questions introduced by the Q-particle are derived from an underlying copular structure. For a discussion of Eid's analysis as well as an alternative proposal regarding the grammatical status of *huwwa*, see Soltan (2011a).

thereby rendering wh-movement dispensable. Similarly, since scope is now marked via an interrogative operator which can be covert, the bound variable is required to be overt, hence the necessity of overt resumption in the language. The hypothesis can be falsified if a dialect that uses a Q-particle in wh-questions does not use the in-situ strategy in question-formation. I do not know of any, but only future investigation of wh-syntax in Arabic can verify or falsify this correlation.[28]

To sum up, in this subsection, I discussed ABC's description of the multiple strategies of question-formation in Arabic dialects, as well as their proposed analyses for licensing wh-scope in each strategy. I have argued that in both resumptive and in-situ wh-questions, scope is licensed via unselective binding by an operator in C, which may be overt in some dialects (e.g., EA). I have also argued that the distinct differences between EA on the one hand, and other dialects on the other, can be explained if the historical development of the Q-particle *huwwa* in wh-questions served as a trigger for dispensing with wh-movement, hence the dialect's uniqueness when it comes to using the in-situ strategy as a default strategy as well as requiring overt resumption.

4.2. *A note on the semantics/pragmatics of question-formation strategies*

Another issue touched upon by ABC in their discussion of wh-questions has to do with the interpretive differences between the different strategies. In this regard, they propose that the in-situ strategy in LA, which is a marked option, is probably associated with presupposition. While this seems plausible, it remains to determine how to implement it. In particular, it is rather a standard assumption that all questions presuppose (e.g., "*Who ate the pizza?*" presupposes that "*Someone ate the pizza*"), but if different strategies correlate with different semantics/pragmatics, it remains to determine how this is so, and what diagnostics we can use to test hypotheses in this regard.

In their discussion of the semantics/pragmatics of questions, Eilam and Lai (2009), following Romero and Han (2004) and Tomioka (2009), argue that not all types of questions are presuppositional, and that, to capture certain differences in syntactic behavior between different types of interrogative structures, a distinction needs to be made between *presupposition* and *epistemic bias*, the latter defined as in (57):

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[28] It should be noted here that the correlation between wh-in-situ and the availability of a Q-particle in a language, often referred to as the *Clausal Typing Hypothesis* (Cheng 1997), has been questioned in Bruening (2007), based on typological evidence.

(57) Bias: a speaker's belief, not necessarily shared by the hearer, that the probability that a proposition is true is greater than the probability that it is false.

To illustrate, Eilam and Lai argue that non-clefted wh-argument questions in English, being associated with bias, allow negative answers and suspension of the associated proposition of a question, may occur in rhetorical questions, give rise to intervention effects of the Beck-1996-type, and cannot function as antecedents for *too*. By contrast, clefted wh-argument questions, which are associated with presupposition, exhibit the reverse of these syntactic patterns. The approach is appealing, because such patterns can be used as diagnostics to determine if a particular type of question involves bias or presupposition (or some degree in between). In Soltan (2011a), I apply two of these diagnostics (felicity of negative answers and suspension) to four types of argument wh-questions (wh-in-situ, wh-in-situ introduced by *huwwa*, wh-ex-situ, and wh-ex-situ introduced by *huwwa*), concluding that interpretive differences between multiple question-formation strategies can be captured in terms of a *presupposition scale*, along the lines of (58) below.

(58)

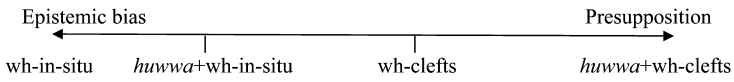

Figure 1: A presupposition scale for argument wh-questions in EA.

What this approach predicts is that the closer a question-formation strategy is to the bias end of the scale, the more compatible it is with negative answers and suspension of implied propositions than strategies to its right, a prediction that seems to be borne out. I illustrate below with the subtle gradation of felicity when negative answers are used in response to the four types of questions in (58).[29]

(59) a. Q: miin siʔiT fii ʔil-ʕarabii? A: maħadiš
who failed.3SGM in the-Arabic Nobody
'Who failed Arabic?'

b. Q: huwwa miin siʔiT fii ʔil-ʕarabii? A: maħadiš
Q.3SGM who failed.3SGM in the-Arabic Nobody
'Who failed Arabic?'

[29] I use the # sign to mark infelicity, per the convention. Gradation of infelicity are marked by the number of # signs in front of the utterance.

c. Q: miin ʔilli siʔiT fii ʔil-ʕarabii? A: #maħadiš
who COMP failed.3SGM in the-Arabic Nobody
'Who is it that failed Arabic?'

d. Q: huwwa miin ʔilli siʔiT fii ʔil-ʕarabii? A: ##maħadiš
Q.3SGM who COMP failed.3SGM in the-Arabic Nobody
'Who is it that failed Arabic?'

Obviously, more research is still needed to verify if this finer-grained approach to the semantics/pragmatics of multiple question-formation strategies is indeed on the right track. For one thing, further diagnostics should be applied to the types of questions mentioned here. Also, other types of wh-questions in the language (those with an optional overt pronominal copula, wh-adjunct questions, yes-no questions, and alternative questions) need to be investigated along the same lines. What is clear, though, is that Arabic dialects provide a rich area of research in this domain, given the multiplicity of question-formation strategies that these dialects use, a fascinating topic that I hope future research will shed more light on.

5. Conclusion

In this review, I have presented a range of syntactic facts from *The Syntax of Arabic*, and provided an evaluative discussion of ABC's analyses for these facts, offering in some instances potential alternative accounts. In particular, I have discussed the following issues in Arabic syntax: (i) Arabic clause structure, with particular focus on the status of tense and aspect, the SV-VS word order alternation, and the subject-verb agreement asymmetry associated with it in dialects such as SA, (ii) the syntax of negation in modern Arabic dialects, with particular focus on the conditions regulating the distribution of the two negation patterns, the position of the head hosting negation in hierarchical structure, and the status of the *-š* segment of the negation morpheme, and (iii) the syntax of wh-questions in Arabic dialects, focusing in particular on the multiple strategies for question-formation utilized by different Arabic dialects, the mechanism of licensing wh-scope associated with each strategy, and a potential approach to the explanation of the semantic/pragmatic differences between these multiple strategies.

Space and time limitations have prevented me from elaborating further on some of the issues mentioned above, and from providing a discussion of other interesting phenomena in Arabic syntax discussed by ABC, such as relative clauses, clitic-left-dislocation structures, and the syntax of the left-periphery in Arabic dialects. The discussion in this review, however, should make it clear how rich a resource *The Syntax of Arabic* is for anyone interested in the

study of Arabic syntax and its implications for linguistic theory in general. It is hoped that the book will generate further linguistic debates of the kind attempted in this review, and in so doing help propel a more active and vibrant research agenda among Arabic linguists, typologists, and syntacticians at large.

Acknowledgements

In forming my ideas on Arabic syntax, many of which are discussed in this review, I have benefited tremendously from many discussions over the past few years with several fellow linguists at various academic venues. For their valuable questions, comments, and suggestions, I'm grateful to Elabbas Benmamoun, Cedric Boeckx, Lina Choueiri, Mushira Eid, Aviad Eilam, Tomohiro Fujii, Norbert Hornstein, Fred Hoyt, Howard Lasnik, Mustafa Mughazi, Hamid Ouali, Juan Uriagereka, and Masaya Yoshida, among many others. I'm also thankful to several members of the audience at the meetings of the *Arabic Linguistics Symposium*, the *Linguistic Society of America*, the *UPenn Linguistics Colloquium*, and the *Georgetown University Round Table on Arabic Language and Linguistics*, for helpful questions and comments. Special thanks are due to my informants for Egyptian, Lebanese, Jordanian, Palestinian, Tunisian, and Moroccan Arabic: Fatma Assef, Huda Fakhreddine, Batool Khattab, Ahmad Al-Mallah, Ikram Masmoudi, Hanada Al-Masri, Samir Matar, Nader Morkus, Hamid Ouali, and Ahmad Soliman. I'm also very thankful to Middlebury College for granting me an academic leave in 2010-2011 during which this article was written. Last but not least, I'm thankful to the Editors of *Brill's Annual of Afroasiatic Languages and Linguistics*, and particularly to Jean Lowenstamm for his editorial help, guidance, encouragement, and patience, during the writing and revising of the manuscript. Needless to say, all errors and shortcomings in this work are entirely my responsibility.

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