

# **Standard Arabic subject-verb agreement asymmetry revisited in an Agree-based minimalist syntax**

***Usama Soltan***

***Department of Linguistics, University of Maryland, College Park***

*Mailing Address: Department of Linguistics  
University of Maryland, College Park  
1401 Marie Mount Hall  
College Park, MD 20742-7505  
USA*

*E-mail: [usoltan@umd.edu](mailto:usoltan@umd.edu)*

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# Standard Arabic subject-verb agreement asymmetry revisited in an Agree-based minimalist syntax\*

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## Abstract

This paper provides a syntactic analysis of the classical subject-verb agreement asymmetry (SVAA) in Standard Arabic (SA) in terms of a minimalist approach to syntactic derivations in which the role of the operation Agree is central (Chomsky 2000, 2001a,b). It is argued here that the SV-VS word order alternation in SA is not due to the presence versus absence of subject movement to SpecTP, but is instead a consequence of two different base-generated structural representations. As a consequence of this analysis, the full-versus-partial agreement asymmetry is shown to follow not from a Spec-head analysis as previously proposed (Mohammad 1990, 2000; Aoun *et al* 1994), but rather from the standard assumption that *pro* in null subject languages has to be identified by rich agreement at the interface. The proposed analysis not only accounts for the basic facts of the SVAA, but also for a set of semantic, syntactic, and Case facts in the language, as well as facts of default agreement with *seem*-type verbs and verbs of modality.

*Key words:* subject-verb agreement asymmetry, Agree, *pro* theory, default agreement.

## 1. Introduction

The study of formal features in natural language grammar has gained considerable significance in the past twenty-five years or so within generative syntax. Within the so-called *Minimalist Program* (MP) for linguistic theory (first proposed by Chomsky 1993, 1995), formal features such as  $\phi$ -features on verbs and Case markings on nominals have come to play a more prominent role in the analysis of syntactic phenomena. Following this line of research, I revisit in this paper a classical agreement phenomenon in Arabic syntax from a minimalist perspective, showing how a rather unexpected asymmetry follows naturally from the conditions imposed on syntactic representations at the interface, thereby lending support to the strong minimalist thesis that views language as an optimal solution to legibility conditions.

The paper is organized as follows. Section 2 presents the facts of the subject-verb agreement asymmetry in Standard Arabic (SA, henceforward). Earlier analyses of the phenomenon in terms of Spec-head agreement are discussed in Section 3, where conceptual as well empirical arguments are presented against such an approach to the account of agreement in natural language grammar. In Section 4 I bring to light further data with regard to agreement with pronominals and the status of preverbal DPs in SA, concluding that full agreement is always indicative of the presence of a null subject *pro* in the structure, and that the preverbal DP is actually base-generated in its surface position, rather than arriving there via movement. Section 5 offers a syntactic implementation of the results arrived at in Section 4 within a framework that dispenses with the Spec-head relationship as the mechanism for agreement in favor of a primitive Agree relation that values the features of functional heads. Section 6 explores the empirical consequences of the analysis presented in Section 5 and introduces further data of default agreement in SA that further supports the proposed analysis. Section 7 sums up the conclusions arrived at in the paper.

## 2. The subject-verb agreement asymmetry in Standard Arabic

SA exhibits the familiar subject verb-agreement asymmetry (SVAA, henceforth) associated with word order alternation: SV orders show full agreement between subject and verb in all  $\phi$ -features (1a), while VS orders show only partial agreement, typically in gender features (1b).<sup>1</sup> No other mix-and-match of agreement pattern and word order is permissible (1c,d).<sup>2</sup>

(1)	a.	ʔal-ʔawlaad-u	qaraʔ-u	d-dars-a	✓SV+full agreement
		the-boys-NOM	read 3plmas	the-lesson-ACC	
	b.	qaraʔa	l-ʔawlaad-u	d-dars-a	✓VS+partial agreement
		read 3sgmas	the-boys-NOM	the-lesson-ACC	
	c.	*ʔal-ʔawlaad-u	qaraʔa	d-dars-a	*SV+partial agreement
		the-boys-NOM	read 3sgmas	the-lesson-ACC	
	d.	*qaraʔ-u	l-ʔawlaad-u	d-dars-a	*VS+full agreement
		read 3plmas	the-boys-NOM	the-lesson-ACC	

Agreement is “partial” in VS orders because even though the number feature surfacing on the verb is always singular in this context, the verb still shows gender agreement with the postverbal DP. In (1b) such gender agreement is not morphologically manifest, since the masculine agreement morpheme is null in this language. If the postverbal DP is feminine, a gender suffix (the traditionally called femininity marker *-t*) obligatorily appears on the verb, as the paradigm of data in (2) below illustrates:

- (2)
- |    |                |               |                |
|----|----------------|---------------|----------------|
| a. | ʔal-fatayaat-u | qaraʔ-na      | d-dars-a       |
|    | the-girls-NOM  | read-3plfem   | the-lesson-ACC |
| b. | qaraʔa-t       | əl-fatayaat-u | d-dars-a       |
|    | read-3sgfem    | the-girls-NOM | the-lesson-ACC |
| c. | *qaraʔa        | l-fatayaat-u  | d-dars-a       |
|    | read-3sg       | the-girls-NOM | the-lesson-ACC |

As it turns out, the SVAA does not obtain in some of today’s dialects. Aoun *et al* (1994) report that this is the case for both Moroccan and Lebanese Arabic (MA and LA, respectively, from now on). I illustrate here with data from MA (Aoun *et al* 1994: 196):

- (3)
- |    |              |              |                       |      |
|----|--------------|--------------|-----------------------|------|
| a. | lə-wlaad     | nʕas-u       | ✓SV+full agreement    | (MA) |
|    | the-children | slept.3pl    |                       |      |
| b. | *nʕas        | lə-wlaad     | *VS+partial agreement |      |
|    | slept.3sg    | the-children |                       |      |
| c. | nʕas-u       | lə-wlaad     | ✓VS+full agreement    |      |
|    | slept.3pl    | the-children |                       |      |
| d. | *lə-wlaad    | nʕas         | *SV+partial agreement |      |
|    | the-children | slept.3sg    |                       |      |

The major challenge in this respect has always been how to account for the presence of the SVAA in SA given standard assumptions about agreement in generative syntax. In the following section I discuss one previous solution to the problem: the Spec-head approach to the SVAA phenomenon.

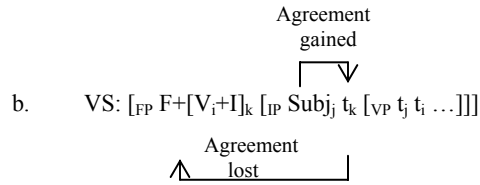
### 3. A Spec-head agreement approach to the SVAA

Within the Government-Binding (GB) framework subject-verb agreement (as well as nominative case assignment) was assumed to be a reflex of a configurational relationship between a head and its specifier, specifically between I and the DP in its Spec, where I is a feature complex of both tense and agreement features. Given this main assumption on how agreement obtains in syntactic configurations, two main analyses of the SVAA in SA have been proposed: the *null expletive analysis* (Mohammad 1990, 2000) and the *agreement loss analysis* (Aoun *et al* 1994). Under the null expletive analysis, full agreement in SV orders is taken to be the result of a Spec-head relation between I and the lexical subject in its Spec (4a), whereas partial agreement in VS orders is the result of a Spec-head relation between I and a null expletive in its Spec (4b):

- (4)
- |    |   |
|----|---|
| a. | SV: [ <sub>IP</sub> Subj <sub>j</sub> V <sub>i</sub> +I [ <sub>VP</sub> t <sub>j</sub> t <sub>i</sub> ...]] |
|    | Spec-Head Agreement<br>   |
| b. | VS: [ <sub>IP</sub> pro <sub>EXPL</sub> V <sub>i</sub> +I [ <sub>VP</sub> Subj t <sub>i</sub> ...]]         |
|    | Spec-Head Agreement<br>   |

A variation on the same Spec-head theme is proposed in Aoun *et al* (1994), where agreement is assumed to actually obtain in both orders under Spec-head agreement between I and SpecIP, with agreement in VS structures then getting “lost” under further verb raising to a head designated as F in their analysis:

- (5)
- |    |   |
|----|---|
| a. | SV: [ <sub>IP</sub> Subj <sub>j</sub> V <sub>i</sub> +I [ <sub>VP</sub> t <sub>j</sub> t <sub>i</sub> ...]] |
|    | Agreement gained<br>  |



From a minimalist perspective, each of these two analyses seems to rely on the presence of a stipulated construct that does not seem to be independently motivated. For one thing, it is not clear how to motivate the presence of a null expletive in the grammar. A null expletive is LF-inert and PF-empty; hence it has no interface value; it simply lives and dies in the syntax. In a word, it is exactly the kind of element that a minimalist grammar should not allow (cf. Uriagereka 2001, Holmberg 2003). Similarly, the mechanism of agreement loss is minimalistically suspect for the simple reason that it does not appear to be attested in other constructions in this same language or in other languages. Realizing the *ad hoc* nature of agreement loss, Aoun *et al* discuss some evidence from an English dialect cited by Kayne (1989), where they argue that some agreement loss mechanism must be involved. Consider the following examples from this English dialect:

- (6) a. the people who Clark think are in the garden  
b. the people whose cars John think are beautiful

According to Kayne, absence of third person singular agreement within the relative clauses in (6) is due to movement of the Agr head to C, where it agrees with the wh-operator in SpecCP, which is plural. Even if this analysis is correct, it is not clear how it bears on the issue of agreement loss. Under Kayne's analysis, (6) seems to be a case of agreement overriding, rather than mere agreement loss: An element agrees first with a singular XP in its Spec, but then, due to movement, ends up in another position, where it agrees again with another element in another Spec, which happens to be plural this time. Even though this involves agreement loss of previously acquired agreement features, it mainly takes place due to the presence of another agreement relationship established at a later point during the derivation. In the VS structures in SA, verb raising does not take the verb to a projection where another agreement relationship is established.<sup>3</sup> Under Aoun *et al*'s analysis, the agreement is just lost, by sheer stipulation. The facts in (6), therefore, do not seem to bear on the issue of the legitimacy of an operation of agreement loss in natural language grammar due to mere verb raising.

On the other hand, a serious empirical problem with the Spec-head approach arises with VS constructions where agreement obtains not with the whole postverbal subject, but with an element embedded within that subject. This is the case of the so-called *first conjunct agreement* (FCA, henceforward) constructions, illustrated below by data from SA:

- |     |    |             |          |     |          |      |
|-----|----|-------------|----------|-----|----------|------|
| (7) | a. | ʒaaʔa       | Zayd-un  | wa  | Hind-u   | (SA) |
|     |    | came-3sgmas | Zayd-NOM | and | Hind-NOM |      |
|     | b. | ʒaaʔa-t     | Hind-u   | wa  | Zayd-un  |      |
|     |    | came-3sgfem | Hind-NOM | and | Zayd-NOM |      |
|     | c. | *ʒaaʔaa     | Zayd-un  | wa  | Hind-u   |      |
|     |    | came-3dumas | Zayd-NOM | and | Hind-NOM |      |

As the data in (7) show, if the postverbal subject is a conjoined phrase, partial (i.e., gender) agreement always obtains with the first conjunct: if the first conjunct is masculine, no gender morphology appears on the verb; if the first conjunct is feminine, the *-t* marker of femininity surfaces on the verb. Even if one assumes that the postverbal conjoined subject is in a Spec-head relation with I at one point in the course of the derivation (say, following Aoun *et al*), there is no way for that analysis to explain to us how the verb surfaces with the gender feature of the first conjunct, rather than with the gender feature of the whole conjoined phrase. In essence, the Spec-head approach to agreement completely falls apart in light of FCA facts.

Realizing the seriousness of the problem raised by the FCA facts, Aoun *et al* propose to save the Spec-head approach by simply denying the existence of FCA. According to them, FCA is only "superficial," not real: cases of FCA, they argue, are actually derived through applying *coordination reduction* (CR) to an underlying clausal coordination structure, such that (8) is derived as in (9):

- |     |           |        |     |        |             |      |
|-----|-----------|--------|-----|--------|-------------|------|
| (8) | nʕas      | Kariim | w   | Marwan | fə-l-biit   | (MA) |
|     | slept.3sg | Kareem | and | Marwan | in-the-room |      |

- (9) Derivation: Across-the-board verb raising + Right Node Raising  
[nʕas<sub>j</sub> [<sub>IP</sub> Kariim ... t<sub>i</sub> ...]] w [<sub>e<sub>j</sub></sub> [<sub>IP</sub> Marwan ... t<sub>i</sub> ...]] [fə-l-biit]<sub>i</sub>

If conjunction is in fact clausal in FCA contexts, then we should expect the “surface” conjoined string to fail semantic plurality tests, which, Aoun *et al* argue, is true in LA and MA. I illustrate here by citing their LA examples:

- (10) a. Kariim w Marwan raaho sawa (LA)  
 Kareem and Marwan left.pl together  
 b. \*raah Kariim w Marwan sawa  
 left.3sg Kareem and Marwan together  
 c. raaho Kariim w Marwan sawa  
 left.pl Kareem and Marwan together
- (11) a. Kariim w Marwan bihibbo haalun/baʕdun  
 Kareem and Marwan love.pl themselves/each other  
 b. \*bihibb Kariim w Marwan haalun/baʕdun  
 love.sg Kareem and Marwan themselves/each other  
 c. bihibbo Kariim w Marwan haalun/baʕdun  
 love.pl Kareem and Marwan themselves/each other
- (12) a. \*ltaʔa Kariim w Marwan  
 met.3sg Kareem and Marwan  
 b. ltaʔo Kariim w Marwan  
 met.3pl Kareem and Marwan

As the data in (10-12) show, occurrence of FCA is incompatible with the presence of an element that inherently denotes semantic plurality: the adverbial *sawa* (=together) in (10), plural reflexives and reciprocals in (11), as well as functioning as subject of intransitive “meet” as shown by (12). Under Aoun *et al*’s analysis, the explanation is simple: semantic plurality items cannot be licensed in FCA contexts for the simple reason that the surface string “DP and DP” is never a phrasal constituent at any point during the derivation; rather, it is the result of applying CR to a clausal coordination structure.

Munn (1999) raises some doubts on the adequacy of the tests that Aoun *et al* use in support of their analysis, which I will not discuss here (see Aoun *et al* (1999) for a reply, though). But even if Aoun *et al*’s tests of semantic plurality were reliable diagnostics for the plurality of a string of the form “DP and DP,” their analysis still cannot be maintained for FCA in other languages where conjoined subjects in VS structures pass all these tests of semantic plurality. One such language is the closely related language of SA, where the adverbial *maʕan* (=together), the reciprocal *baʕD-a-hum əl-baʕD* (=each other), as well as the occurrence as subject of intransitive *ʔltaqa* (=meet), are all possible in FCA contexts:

- (13) a. ʔaaʔa-t Hind-u wa ʕamr-u maʕan  
 came-3sgfem Hind-NOM and Amr-NOM together  
 “Hind and Amr came.”  
 b. tuhibbu Hind-u wa ʔixwat-u-haa baʕD-a-hum əl-baʕD  
 love.3sgfem Hind-NOM and brothers-NOM-her some-ACC-them the-some  
 “Hind and her brothers love each other.”  
 c. ʔilitaqa-t Hind-u wa ʔaxaw-aa-haa f-əl-hafl-i  
 met.3sgfem Hind-NOM and brothers-dual.NOM-her at-the-party-DAT  
 “Hind and her two brothers met at the party.”

Harbert and Bahloul (2002: 60) point out that the same is also true of Welsh, where occurrence of reciprocals (14a), functioning as subject of intransitive “meet” (14b), as well as the use of the inherently dual preposition “between” (15a,b), are all compatible with FCA:

- (14) a. Es i a’m brawd gyda ein gilydd  
 went.1sg I and-my-brother with each other  
 b. Cwrddais i a’m brawd ym Mharis  
 met.1sg I and-my-brother in Paris
- (15) a. cynnen rhyngof fi a thi  
 strife between.1sg me and you  
 b. cwlwm o gariad sydd rhyngoch chwi a hi  
 bond of love which-is between.2pl you and her

Similarly, Johannessen (1996) provides examples from Czech where FCA does occur in the presence of semantic plurality items such as the so-called “strong and” *i* (=both) and distributive “each”, as illustrated by the examples in (16a,b), respectively:

- (16) a. Půjdu tam já i ty  
 will-go.1sg there I.NOM and you.NOM.2SG  
 “Both of you and I will go there.”
- b. Po jednom jablku sndl Jan a Petr  
 at-the-rate-of one.LOC apple-LOC ate.3sg John.NOM and Peter.NOM  
 “John and Peter ate an apple each.”

To conclude, even if a CR analysis of FCA constructions in MA and LA was feasible, there is strong empirical evidence that FCA constructions in SA, Welsh, and Czech cannot be derived from an underlying clausal conjunction structure, perhaps casting further doubts on the adequacy of the Spec-head approach to agreement in general.<sup>4</sup>

The empirical problems posed to the Spec-head approach to agreement by VSO languages, where agreement is typically licensed between the verb and a postverbal subject, have always been pointed out in the relevant literature (see Sproat (1985) for Welsh and Mohammad (1990, 2000) for Arabic, among others). For these languages the fundamental GB notion of *government* frequently came to play a major role in accounting for subject-verb agreement and nominative case assignment. Precisely, the I node came to acquire its features either through Spec-head agreement with a preverbal DP or through government of a postverbal DP, the latter mechanism mirroring the one needed to account for object-verb agreement and accusative case assignment. Of course, the (already complex) definition of government had to be complicated further to accommodate these cases, allowing a head to agree and assign Case to the Specifier of its complement. Empirical necessity led us then to posit two mechanisms for subject-verb agreement in syntactic derivations: a Spec-head approach for SVO languages like English, and a government mechanism for VSO languages like Arabic.<sup>5</sup>

With the advent of the MP, the problem was immediately realized and an attempt was made to eliminate such duality in the mechanisms needed in the account of agreement and Case assignment in natural languages. Chomsky (1993) thus argued for the elimination of the notion of government entirely from the theory of grammar, proposing instead to account for agreement and Case assignment in terms of a Spec-head configuration between an Agr head and a nominal category in its Spec. While Agr is assumed to be a single category, like other categories, it can appear in several syntactic positions (much like an NP appears in different positions). So, subject agreement is assumed to be mediated by an Agr<sub>S</sub> head, object agreement by Agr<sub>O</sub>, adjectival agreement by Agr<sub>A</sub>, etc. While this approach got rid of the duality of agreement and Case assignment in the GB model, it faced nontrivial challenges.

On a conceptual level, it is not clear if there is anything natural about agreement being a reflex of a phrase structure relationship between a head and an XP in its specifier. After all, syntactic relationships seem to be head-head relations (e.g., selection/theta-marking of arguments is sensitive to the inherent properties of the head noun within the selected DP projection rather than to the DP projection itself).<sup>6</sup> Second, even if agreement were indeed the result of a configurational relationship, it is not clear why it would not arise in the same manner in the equally primitive head-complement relationship.

In fact, to accommodate the empirical fact that agreed-with elements do not necessarily appear in a Spec position at surface structure (e.g., while subjects could be argued to have raised to SpecAgr<sub>S</sub> in a language like English, there was no need to assume that objects raise in this language), two major assumptions needed to be made: First, that lexical items are inserted into syntactic structures fully inflected with morphological features that then get to be “checked” during the derivation. Second, that checking could take place either in *overt syntax* (that is before the operation Spell-out applies) or in *covert syntax* (i.e., after Spell-out applies).<sup>7</sup> Checking theory was an obvious complication in the lexicon; the overt-covert distinction was a complication in the way the computational system works.<sup>8</sup>

It seems then that the MP, while trying to eliminate the need for both the Spec-head and government relations in the account for agreement and Case, ended up inducing more complexity in the theory than what it set out to eliminate. In fact, to make things more complex, the MP introduced a new element that soon enough became minimalistically suspect: *Agr*. *Agr* was defined as a mere set of uninterpretable  $\phi$ -features that needed checking during the derivation to enable the derivation to converge at LF. But checking in this theory was defined as “deletion” of the uninterpretable features on a head, so these features become invisible at the semantic interface. But if this is the case, then the structural representation at LF will contain an ill-formed syntactic object, that is, the projection of *Agr*: After checking, *AgrP* is now a projection of “nothing,” given that *Agr* heads have no semantic content whatsoever (cf. Chomsky 1995, 2000). That should be enough to cause the derivation to crash at LF. The *Agr*-based approach to agreement phenomena, which was a more elaborate development of the Spec-head approach of GB, thus came to conflict with other minimalist assumptions regarding syntactic derivations.

Given these conceptual, empirical and technical problems, it seems that, from a minimalist perspective, a Spec-head approach to agreement is becoming suspect as the mechanism for the account for agreement and Case phenomena in natural language grammar.<sup>9</sup> But the presence of agreement in natural language is obviously a matter of fact, and any theory of grammar needs to account for that. So, perhaps rather than trying to reduce agreement to a phrase structure relationship, it could be that agreement is simply a reflex of an operation that is specifically designed

to do so. In other words, suppose, unequivocally, that agreement obtains because there is a *primitive* built-in operation in the grammar that says *Agree*( $\alpha$ ,  $\beta$ ), subject to certain locality conditions, where  $\alpha$  and  $\beta$  are two elements in the structure. While the postulation of such an operation does not directly explain to us why agreement should exist in natural language grammar, remember that we never had any such explanation under the former approaches either. Naming Spec-head relations as “agreement” relations was sheer labeling; it had no explanatory value whatsoever. It was a mere artifact of the theory. It seems, however, that if the strong minimalist thesis regarding the “optimality” of language design is indeed correct, *Agree* could be seen as a built-in design feature to ensure satisfaction of legibility conditions. While the issues here are subtle and proposals are speculative at best, I will assume that this is actually the case: agreement is induced by *Agree*, not through Spec-head agreement. I will get back to discuss the properties of the operation *Agree* and how it works in Section 5.

To sum up the discussion in this section, there are various conceptual and empirical problems in any analysis of the SVAA in SA in terms of Spec-head agreement. Consequently, an alternative analysis is still needed. Before I offer such an analysis, however, I spend the next section discussing further data relevant to the SVAA which will eventually force us to posit a fundamental distinction in the derivation of VS versus SV orders.

#### 4. Agreement with pronominal subjects and the status of preverbal DPs

One relevant fact about subject-verb agreement in SA which has been occasionally mentioned in the relevant literature is the lack of asymmetry in agreement with pronominal subjects in SA, whether these pronominals are null (which is the unmarked case) or overt, and whether these pronominals precede or follow the verb:<sup>10</sup>

- |      |    |             |             |                |                       |
|------|----|-------------|-------------|----------------|-----------------------|
| (17) | a. | (hum)       | qaraʔ-u     | d-dars-a       | ✓SV+full agreement    |
|      |    | they        | read 3plmas | the-lesson-ACC |                       |
|      | b. | qaraʔ-u     | (hum-u)     | d-dars-a       | ✓VS+full agreement    |
|      |    | read 3plmas | they-EV     | the-lesson-ACC |                       |
|      | c. | *qaraʔa     | hum-u       | d-dars-a       | *VS+partial agreement |
|      |    | read 3sgmas | they-EV     | the-lesson-ACC |                       |

Notice here that since SA is a null subject language, overtiness of the pronominal subject is a marked option and is always associated with emphasis/contrastive focus effects. Similarly, if the first conjunct in a conjoined subject is pronominal, full agreement shows up on the verb in the VS order:

- |      |    |             |                     |     |                                  |
|------|----|-------------|---------------------|-----|----------------------------------|
| (18) | a. | ʒiʔ-tu      | ʔanaa               | wa  | Hind-u                           |
|      |    | came-1sg    | I                   | and | Hind-NOM                         |
|      | b. | ʒiʔ-nna     | hunna               | wa  | ʔabaaʔ-u-hunna                   |
|      |    | came-3plfem | they <sub>FEM</sub> | and | fathers-NOM-their <sub>FEM</sub> |

Unlike the case with non-conjoined pronominal subjects, overtiness of the pronominal here is obligatory and does not correlate with any emphasis/contrastive focus effects:

- |      |    |             |     |     |                                  |
|------|----|-------------|-----|-----|----------------------------------|
| (19) | a. | *ʒiʔ-tu     | pro | wa  | Hind-u                           |
|      |    | came-1sg    |     | and | Hind-NOM                         |
|      | b. | *ʒiʔ-nna    | pro | wa  | ʔabaaʔ-u-hun                     |
|      |    | came-3plfem |     | and | fathers-NOM-their <sub>FEM</sub> |

These facts of agreement with pronominal subjects thus seem to point to the descriptive generalization in (20):

- (20) Full agreement is always required when the subject is (or includes as a first conjunct) a pronominal, whether that pronominal is overt or null, and whether it occurs in pre- or postverbal position.

On the other hand, there is good empirical evidence that SV orders seem to differ in several ways from their corresponding VS orders in their semantic, syntactic as well as Case properties. First, semantically, 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.<sup>11</sup> As it turns out, this is supported by the fact that indefinite nonspecific NPs cannot occur preverbally in SA, as the ungrammaticality of (21a) below indicates (cf. Fassi Fehri 1993, Demirdache (to appear)).<sup>12</sup>

- |      |    |              |              |              |
|------|----|--------------|--------------|--------------|
| (21) | a. | *walad-un    | kasara       | l-baab-a     |
|      |    | boy-NOM      | broke 3sgmas | the-door-ACC |
|      | b. | kasara       | walad-un     | l-baab-a     |
|      |    | broke 3sgmas | boy-NOM      | the-door-ACC |

Recall that this is also a property of *clitic-left-dislocated* (CLLDed, henceforward) elements in this language:

- (22) a.  $\text{\textcircled{7}al-kitaab-u}$      $\text{qara\textcircled{7}a-hu}$      $\text{Zayd-un}$   
           the-book-NOM    read 3sgmas-it    Zayd-NOM  
       b.  $*\text{kitaab-un}$      $\text{qara\textcircled{7}a-hu}$      $\text{Zayd-un}$   
           book-NOM    read 3sgmas-it    Zayd-NOM

This topic-like property of preverbal DPs in SV structures suggests that such DPs are actually base-generated in a left-peripheral position in the sentence in the same way CLLDed elements are generated.

In addition to semantic differences, VS and SV orders differ with regard to their interaction with wh-movement: while extraction across a postverbal DP is nonproblematic, extraction across preverbal DPs is typically disallowed (cf. Fassi Fehri 1993):

- (23) a.  $\text{man}$      $\text{Daraba}$      $\text{Zayd-un}$   
           who    hit 3sgmas    Zayd-NOM  
       b.  $*\text{man}$      $\text{Zayd-un}$      $\text{Daraba}$   
           who    Zayd-NOM    hit 3sgmas

The contrast in (23) could be explained if the preverbal DP in this language is actually sitting in an A'-position, unlike its counterpart in English-like languages for example, thus blocking wh-movement under standard minimality assumptions.<sup>13</sup> Interestingly, if a resumptive pronoun occurs in object position, hence signaling absence of a movement operation in the structure, the order “Wh DP V” becomes possible, assuming that minimality is a condition on movement operations:

- (24)  $\text{man}$      $\text{Zayd-un}$      $\text{Daraba-hu}$   
           who    Zayd-NOM    hit 3sgmas-him

Wh-extraction facts thus provide evidence that the preverbal DP in SV orders is base-generated in its surface position in the sentence, rather than arriving there via movement from within the thematic domain.

In addition to the semantic and extraction evidence above for the A'-status of the position of the preverbal DP in SV structures in SA, the Case properties of post- and preverbal DPs seem to point in the same direction. Postverbal DPs uniformly appear with nominative case, whereas preverbal DPs appear with nominative case only in absence of an available Case assigner (e.g., an overt C of the *\text{\textcircled{7}inna}*-type or an Exceptional Case Marking (ECM) verb of the *want*-type). Consider the following data:

- (25) a.  $\text{qara\textcircled{7}a}$      $\text{l-\textcircled{7}awlaad-u}$      $\text{d-dars-a}$   
           read 3sgmas    the-boys-NOM    the-lesson-ACC  
       b.  $\text{\textcircled{7}al-\textcircled{7}awlaad-u}$      $\text{qara\textcircled{7}-u}$      $\text{d-dars-a}$   
           the-boys-NOM    read 3plmas    the-lesson-ACC  
       c.  $\text{\textcircled{7}inna}$      $\text{l-\textcircled{7}awlaad-a}$      $\text{qara\textcircled{7}-u}$      $\text{d-dars-a}$   
           C    the-boys-ACC    read 3plmas    the-lesson-ACC  
           “(I affirm that) The boys read the lesson.”
- (26) a.  $\text{\textcircled{7}araad-a}$      $\text{Zayd-un}$      $\text{\textcircled{7}an}$      $\text{yarhal-a}$      $\text{l-\textcircled{7}awlaad-u}$   
           wanted-3sgmas    Zayd-NOM    C    leave-3sgmas    the-boys-NOM  
       b.  $\text{\textcircled{7}araad-a}$      $\text{Zayd-un}$      $\text{\textcircled{7}al-\textcircled{7}awlaad-a}$      $\text{\textcircled{7}an}$      $\text{yarhal-uu}$   
           wanted-3sgmas    Zayd-NOM    the-boys-ACC    C    leave-3plmas  
           “Zayd wanted the boys to leave.”

The two sentences in (25a,b) show that both postverbal and preverbal DPs appear with nominative Case. What (25c) shows, however, is that this is not always the case with preverbal DPs, since that DP obligatorily surfaces with (what is morphologically identical to) accusative case when preceded by a C of the *\text{\textcircled{7}inna}*-type. Similarly, in ECM constructions of the *want*-type, the embedded subject will appear with nominative case if it stays in situ (26a). If the ECM subject appears preverbally, however, it will surface with accusative case assigned by the ECM verb (26b). These Case facts suggest that the nominative appearing on both preverbal and postverbal DPs is not the same: nominative case assigned to postverbal DPs is structural, whereas nominative case appearing on preverbal DPs is actually the default case typically assigned to topics in this language in absence of any available lexical or structural Case assigner. That nominative is a default case in SA gains support from the Case properties of copular topic-comment constructions, where no overt verb occurs. In such structures, the so-called topic (and also the predicate if nominal or adjectival) appears with nominative case:

- (27) a.  $\text{Zayd-un}$      $\text{fi-d-dar-i}$   
           Zayd-NOM    in-the-house-DAT



- b. Zayd-un        muʕallim-un  
       Zayd-NOM    teacher-NOM
- c. Zayd-un        saʕiid-un  
       Zayd-NOM    happy-NOM

Summarizing the discussion on the status of preverbal DPs in SV orders in SA, there seems to be good empirical evidence in favor of the following descriptive generalization:

- (28) While postverbal DPs are noncontroversially subjects, preverbal DPs exhibit the semantic, syntactic and Case properties typically associated with topics/clitic-left dislocated elements.

To conclude this section, lack of asymmetry of subject-verb agreement with (typically null) pronominal subjects as well as the A'-properties associated with preverbal lexical DPs in SV structures point in the direction of an analysis of the SVAA not in terms of movement and Spec-head agreement as some of the earlier analyses have proposed, but rather in terms of base-generation of preverbal DPs in their surface position. In the next section I develop such an analysis in detail.

#### 4.1 SVAA revisited: A base-generation analysis

The discussion in the previous section boils down to the following: (a) full agreement is always required if the subject is a pronominal, and (b) the preverbal DP in SV structures does not get there via movement. Any analysis of the SVAA has to account for both of these generalizations. In this section I would like to argue for an analysis that captures the two descriptive generalizations in (20) and (28) by positing two different underlying structures for SV and VS orders in SA. As a point of departure, I will assume that the descriptive generalization in (20) can actually be used as a diagnostic for the presence of a pronominal subject. In other words, from the fact that full agreement is always required with pronominal subjects, I will assume that presence of full agreement is actually indicative of the presence of a pronominal subject. In more precise terms, I would like to assign the following structural representations for VS and SV orders:

(29) VS:  $[_{TP} T+[_{v^*+V}] [_{v^*P} DP t_{v^*} [_{VP} t_V YP]]]$

(30) SV:  $[_{TP} DP T+[_{v^*+V}] [_{v^*P} pro t_{v^*} [_{VP} t_V YP]]]$

In (29), the lexical DP, base-generated in Spec $v^*P$ , remains in situ, with the VS order resulting from verb movement to  $v^*$  to T. In SV structures, by contrast, the VP-internal subject position is actually occupied by a null subject *pro*, with the preverbal DP base-generated in its surface position in SpecTP. This preverbal DP will be interpreted as coreferential with the *pro* in postverbal subject position in the same way a CLLD-ed DP is interpreted as coreferential with a resumptive pronoun within the thematic domain. The representations in (29) and (30) do derive the word order, but of course the main question here is: Can they account for the agreement asymmetry?

In fact, given the structural distinction between (29) and (30), a natural answer arises for this question: full agreement obtains in the SV orders because of the presence of a pronominal subject, which is in essence the generalization in (29). Partial agreement in the VS order could be viewed then as the result of a default agreement morpheme on T in this language. We will get back to the gender agreement issue later on.

Still, we have not explained why full agreement is obligatory when the subject is pronominal, but not so when the subject a lexical DP. An answer to this question is readily available from one of the standard assumptions of *pro* theory: the so-called *pro identification requirement* (cf. Rizzi 1982, McCloskey 1986), now reformulated as an interface condition (perhaps holding at PF):

- (31) A null element *pro* has to be identified at the interface, where identification is established by a complete  $\phi$ -complex associated with *pro*.<sup>14</sup>

Given (31), the presence of full agreement in SV orders comes down to an interface requirement on the structure in (29): agreement has to be full or *pro* will not be identified. Since lexical DPs are not subject to an identification requirement, full agreement is not required, though by no means prohibited (cf. the data from MA in (3)), for interface convergence; default agreement is therefore allowed.

Notice, however, that pronominal subjects may also appear overtly, in which case it is not clear if presence of full agreement on the verb is again required for interface convergence. Recall, though, that pronominals in subject position surface overtly in two contexts: for emphasis/contrastive focus effects or as the first conjunct in a conjoined subject. Suppose, then, that overtness of the pronominal in subject position is actually the result of an interface operation of lexicalization of a null subject *pro* rather than early insertion of a pronominal with phonological content. The assumption makes sense in light of the fact that null subject languages do not normally allow subjects to be overt. In fact, in some languages overtness of a pronominal is strictly prohibited, as McCloskey (1986: 251) argues is the case in Irish, illustrated here by the following examples:

- |      |    |                        |            |    |                        |      |
|------|----|------------------------|------------|----|------------------------|------|
| (32) | a. | cuirim                 | <i>pro</i> | b. | *cuirim                | mé   |
|      |    | put ( <i>PRES S1</i> ) |            |    | put ( <i>PRES S1</i> ) | I    |
|      |    | “I put”                |            |    |                        |      |
| (33) | a. | liom                   | <i>pro</i> | b. | *liom                  | mé   |
|      |    | with (S1)              |            |    | with (S1)              | I/me |
|      |    | “with me”              |            |    |                        |      |
| (34) | a. | mo theach              | <i>pro</i> | b. | *mo theach             | mé   |
|      |    | S1 house               |            |    | S1 house               | I/me |
|      |    | “my house”             |            |    |                        |      |

Interestingly, however, Irish allows overt pronominals to surface with the so-called *analytic* verb forms, i.e., those verb forms that inflect for tense, but not for person and number features:<sup>15</sup>

- (35) cuireann sibh  
put (*PRES*) you (PL)

McCloskey proposes that the contrast between the obligatory nullness of the pronominal subject in (32a) and the obligatory overtness of the pronominal subject in (35) may be explained in terms of “a requirement that the most highly-specified form available be inserted under zero-level categories at lexical insertion” (252). McCloskey’s insight can be readily captured under the present analysis: Given the condition on *pro* identification, analytic forms cannot license *pro*, hence the need to fix the representation, or the derivation crashes. At it turns out, Irish forces lexicalization of the null subject in such cases. With synthetic verb forms, no such lexicalization is needed, since *pro* can be easily identified from the morphology on the verb or any other agreeing head (e.g., P or N). In essence, this supports the idea that pronominals in null subject languages start the derivation as *pro*, with lexicalization forced at the interface to save the derivation from crashing.

But obviously Arabic overt pronominals cannot be treated in the same way as those in Irish. Arabic simply has no synthetic-analytic morphological distinction for verb forms. Remember, however, that overt pronominals in such cases are associated with an emphatic interpretation. Suppose, then, that the overtness of the subject pronominal is actually related to this emphasis feature. In other words, suppose that the pronominal subject still starts as *pro*, and then gets lexicalized at the interface to save the derivation from crashing. After all, it is reasonable to assume that an emphasis feature on a null element is uninterpretable at PF. To be more precise, suppose that when *pro* carries a feature that cannot be realized on a null element, e.g., emphasis/focus, a rule of late insertion (such as the one in (36) below for the sentences in (17a,b)) Spells-out the pronominal  $\phi$ -complex overtly, otherwise *pro* will always remain “silent”:

- (36) For  $pro_{[3plmas, +EMPHASIS]}$ , insert “hum”.

In short, then, full agreement with overt pronominal subjects in SA is still compatible with the idea that rich agreement is tied to the presence of a *pro* in the structure, since at the relevant point when *pro* identification applies, the subject is not yet lexicalized.

One final point is still in order. Recall that overt pronominals obligatorily surface in conjoined subjects as well, though in this case no semantic effects of emphasis/focus occur. How do we explain the obligatoriness of the pronominal in such cases then if we want to maintain the assumption that all pronominals in null subject languages start as the null element *pro*? As it turns out, there is a ready answer for that. Coordinate structures have always been assumed to be subject to a (little understood and unarticulated) condition of *parallelism*. It seems reasonable to assume that one case of parallelism is phonological: both conjuncts must have phonetic content. If this is the case, then lexicalization of a *pro* conjunct follows from the interface condition on the phonological parallelism of coordinate structure. In fact, it could be that the classical *coordinate structure constraint* (CSC) is nothing but a violation of phonological parallelism, since after extraction; one of the two conjuncts is phonologically empty. That this is reasonable to assume is supported by two basic facts: First, across-the-board (ATB) extraction out of coordinate structures is legitimate; second, the CSC, unlike other island constraints, hardly seemed reducible to locality conditions such as Subjacency or in terms of a theory of barriers. Under the parallelism analysis, these two facts follow: ATB extraction preserves phonological parallelism (which would be lack of phonetic content in both conjuncts), whereas the nonreducibility of the CSC to locality principles is simply because the CSC is not a syntactic constraint; it is an interface condition.

In his discussion of first conjunct agreement in Irish, McCloskey states that “the leftmost element in a coordinate series ... may be *pro*,” which seems to contradict what we have just mentioned about the parallelism requirement on coordinate structures. As it turns out, in all the examples that McCloskey gives of conjoined phrases with *pro* as the first conjunct, a phonologically overt *féin* element (glossed as *EMPH*) always appears in that first conjunct, thereby suggesting that Irish has a language-particular element for fixing violations of the parallelism condition on coordinate structures (examples from McCloskey 1986: 254):

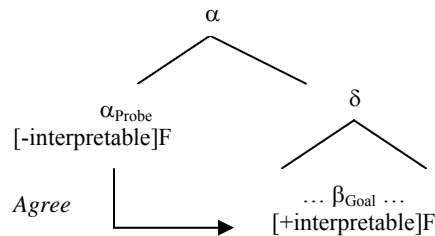
- (37) a. Bhíos [NP *pro*-féin agus Eoghan] i láthair  
 Be (Past S1) (S1) EMPH and Owen present  
 “Owen and I were present.”
- b. liom [NP *pro*-féin agus Eoghan]  
 with (S1) (S1) EMPH and Owen  
 “with me and Owen”
- c. mo ghabháltas [NP *pro*-féin agus mo mháthar  
 S1 holding (S1) EMPH and my mother (GEN)  
 “my own and my other’s holdig”

Let us summarize the discussion in this section so far. SV orders in SA differ from VS orders in that the former contain a *pro* subject in the VP-internal subject position, associated with a preverbal DP, in the same way a CLLDed DP is related to a resumptive pronoun. Since *pro* is subject to an identification requirement, full agreement is always manifest to allow the derivation to converge at the interface. Lexical DPs, by contrast, need not be identified, hence the occurrence of either default agreement (SA) or full agreement (MA/LA) is possible in VS orders. Pronominals in null subject languages start the derivation as *pro*, which may get lexicalized if required by interface conditions, such as the requirement that emphasis/focus features be represented on a phonologically overt element, and the requirement that coordinate structures be parallel in their phonological content. If this analysis is correct, then the surface SVAA in SA can be explained in terms of the conditions imposed by the interface systems on structural representations, a result that seems in conformity with the strong minimalist thesis that language design is such that it satisfies bare output condition. It remains, however, to see if these results can be captured within a minimalist framework. I turn to this next.

## 5. Standard Arabic SVAA in an Agree-based framework

In this paper, I will follow Chomsky (2000, 2001a, 2001b) in assuming that agreement in natural language grammar is induced through the application of an operation *Agree*, which is a syntactic relation that takes place at a distance (rather than in a Spec-head configuration) within a local search domain, as illustrated in (38):

(38)



As diagrammed in (38), *Agree* is an operation that establishes a relationship between an element  $\alpha$  (call it a *Probe*) with uninterpretable features and an element  $\beta$  (call it a *Goal*) with matching interpretable features in the domain of  $\alpha$  (which is  $\delta$ , a sister of  $\alpha$ , in (38)), whereby the uninterpretable features on the *Probe* are *valued* by the matching interpretable features on the *Goal*. Typical examples of uninterpretable features are  $\phi$ -features or *wh*-features on functional heads, or Case on nominals. Long distance agreement is attested in natural language grammar. We have already mentioned in Section 3 agreement with postverbal subjects in VSO languages, as well as cases of first conjunct agreement in several languages. A yet another example of long-distance agreement is agreement with the postverbal associate in English expletive constructions in SVO languages (cf. fn.5):

- (39) [There T seem [to be two men in the room]]
- 
- The diagram for (39) shows a horizontal line with an upward-pointing arrowhead on the right. Below the line is the word *Agree*. The line starts under the 'T' in 'There T seem' and ends under the first 'T' in 'to be two men in the room'.

For the purposes of *Agree*, I will assume that T has the following inventory of uninterpretable features: First,  $\phi$ -features for the traditional Person and Number features, which may also happen to have *default* values. Second, T may also appear with a separate *CLASS* feature, familiar from languages with rich classifier systems (e.g., Bantu), which also appears as a Gender feature in many languages. If Gender is not part of the  $\phi$ -complex on T, then it should be able to probe separately for the purposes of *Agree* (see Ouhalla 2003, for instance). Finally, T may appear with an EPP feature, understood here as the requirement to be “an occurrence of something,” where an occurrence of  $\alpha$  is a sister of  $\alpha$  (Chomsky 2001b). In principle, then, T can appear with  $\phi$ , *CLASS*, EPP, or any combinations of these three, subject to lexical parameterization.

Given the above theoretical assumptions as well as the discussions in the previous sections, we are now in a position to present explicit derivations of SV and VS word orders in SA and the agreement pattern associated with each. For simplicity of presentation, suppose that our target Arabic SV structure is “*The girls read the book*” with full agreement surfacing on the verb “read.” The structural representation of the sentence is as follows:<sup>16</sup>

$$(40) [_{CP} C [_{TP} DP T_{EPP/\phi/CLASS} [_{v^*P} pro v^* [_{VP} read the book]]]]$$

└ Agree ↗

In (40) Agree takes place between T and the  $v^*P$ -internal subject *pro*, thereby valuing the  $\phi$  and the Class features of T. The preverbal DP is base-generated in its surface position to satisfy the EPP feature on T. As noted earlier, agreement with a *pro* subject is only compatible with a full T, necessarily required so *pro* can be identified and the derivation converges at the interface.

Consider now the VS order. Here our target structure is “*Read the girls the book*,” with partial gender agreement appearing on the verb. The structural representation of such a sentence is as in (41):

$$(41) [_{CP} C [_{TP} T_{DEFAULT/CLASS} [_{v^*P} DP v^* [_{VP} read the book]]]]$$

└ Agree ↗

There are two main structural differences between (41) and (40): First, there is no *pro* in (41); rather, the  $v^*P$ -internal subject position is occupied by the lexical DP. Second, T has no  $\phi$  nor EPP features, as a lexical option for this particular dialect. Class, however, is an obligatory feature on T, hence the manifest gender agreement in VS as well as SV orders. Notice, however, that in principle, we should expect a language where T can appear with both  $\phi$  as well as Class features in structures such as (41), a prediction that is borne out by the presence of Arabic dialects where full agreement does obtain in VS orders as noted earlier with regard to LA and MA. Such dialects will allow a T with both  $\phi$  and Class features without an EPP option:

$$(42) [_{CP} C [_{TP} T_{\phi/CLASS} [_{v^*P} DP v^* [_{VP} read the book]]]]$$

└ Agree ↗

Under this analysis, the difference between SA on the one hand, and LA/MA on the other, has to do with the lexical properties of T in these varieties. SA, as noted before, does not allow a  $\phi$ -complete T without an EPP feature. LA/MA, by contrast, seem to allow this option as a lexical property on T.<sup>17</sup>

## 6. Some empirical consequences of the Agree-based analysis of SVAA

The derivations presented in the previous section derives both SV and VS word orders as well as the agreement pattern associated with each. Word order is derived by whether or not there is a *pro* in the numeration, whereas the agreement pattern is derived by the “operating downward” Agree mechanism and the type of T selected. But at this point we should also wonder if the analysis has any further empirical merits. In this section I discuss some interesting consequences of the present approach to the SVAA.

One advantage of the current analysis is that we can now account for the definiteness/specificity requirement on preverbal DPs (cf. the data in (21)). Remember that in SA sentences of the form “*A boy broke the window*” are ungrammatical on the nonspecific reading. Given the analysis presented here, this is straightforward. For such a structure to be derived, the NP “a boy” has to be associated with *pro*. But *pro* is inherently definite/specific, hence no such association can be established. In other words, a structure with a nonspecific NP in preverbal position is simply uninterpretable at the semantic interface. The only way for an indefinite NP to receive a nonspecific interpretation is by Merging it directly in the  $v^*P$ -internal subject position, hence its exclusive appearance in postverbal position.

Now, consider the wh-extraction facts in (23) again. Recall that extraction is allowed across a postverbal DP, but is prohibited across a preverbal DP. Under the analysis presented here, that again follows naturally. If SV orders are actually CLLD structures with the preverbal DP base-generated in SpecTP, that makes SpecTP in SA an A'-position (cf. fn.13). Extraction of a wh-phrase across that position is, therefore, disallowed by standard minimality considerations. Wh-extraction across a DP in Spec $v^*P$ , by contrast, is nonproblematic.

Next, let’s reconsider the Case facts presented earlier in Section 3 (cf. 25-26): postverbal DPs are always nominative; preverbal DPs are nominative only if there is no other case that could be assigned to them. Under the current analysis, postverbal DPs will always get nominative case by virtue of Agreeing with T, the locus of nominative case assignment under standard assumptions. Preverbal DPs, however, never start within the thematic domain, and never get into any Agree relation with T, and therefore end up with default case (which happens to be nominative in SA), unless a lexical or structural Case-assigner is available in the structure, e.g., an overt C or an ECM verb, in which case the base-generated preverbal DP will surface with non-nominative case:

(43) [<sub>CP</sub>  $\gamma$ inna [<sub>TP</sub> DP T [<sub>v\*P</sub> *pro* v\* [<sub>VP</sub> V ... ]]]]  
 └─ Case ─┘

(44) [<sub>VP</sub> V<sub>ECM</sub> ... [<sub>CP</sub> DP C [<sub>TP</sub> T [<sub>v\*P</sub> *pro* v\* [<sub>VP</sub> V ... ]]]]]]  
 └─ Case ─┘

If the position of the preverbal DP in SV structures was actually derived by movement from the VP-internal subject position to SpecTP, a question that would remain unanswered is why such movement is needed, if the DP can still get nominative case in situ, as the grammaticality of VS structures in this language indicates. Even under a more lax theory where DPs can move after they get Case, a question would still remain why this “structural” nominative case ends up giving way to another case assigned by a lexical or structural Case-assigner. A mechanism of overriding Case features under multiple Case-assignment, whereby a later assigned Case annuls an earlier assigned Case, seems *ad hoc* and non-economical. Under the current analysis, none of these questions arise: there is no movement-from-a-Case-position problem, since the preverbal DP has never moved. There is no multiple-Case-assignment problem, since the preverbal DP gets only one case, that assigned by the relevant Case assigner if there is one, or by default if there is none.

We move next to the semantic properties of SV structures. Remember that these structures have been traditionally treated as topic-comment structures, CLLD in our terms. The question now is if we can derive this from the syntactic machinery assumed here. In his discussion of Object Shift in Icelandic-type languages, Chomsky (2001a) proposes that “optional” EPP features can be seen as having an interface value at the SEM(antic) level. Precisely, an EPP feature, when optional, should generate an effect on the outcome of the derivation at SEM, a simple economy condition. Suppose, then, that EPP on T may be, parametrically, optional (see McCloskey (1996a, 1996b, 2002) for an argument for absence of EPP effects on Irish T). If this assumption is on the right track, then we have an explanation for the difference in interpretation between SV and VS orders in SA: EPP licensing in SV orders results in an LF reflex of categoricalness, whereas absence of an EPP feature in VS orders results in the defaultthetic interpretation.

One final interesting consequence of the current analysis has to do with the agreement properties of *seem*-type verbs in SA (and, as far as I know, in all of today’s dialects as well). SA does not have raising; rather, *seem*-type predicates always select a finite CP:<sup>18</sup>

- (45) a. yabdu                     $\gamma$ anna                    l- $\gamma$ awlaad-a                    qad                    haDar-uu  
          seem 3sgmas                    C                    the-boys-ACC                    PCL                    come/PERF-3plmas  
          “It seems that the boys have come.”
- b.  $\gamma$ al- $\gamma$ awlaad-u                    yabdu                     $\gamma$ anna-hum                    qad                    haDar-uu  
          the-boys-NOM                    seem 3sgmas                    C-they                    PCL                    come/PERF-3plmas  
          “The boys, it seems that they have come.”

What is crucial to the discussion here is that the verb *yabdu* (=seem) is invariant in its morphology, as the examples in (58) show: it always surfaces with third person singular masculine default agreement, whether or not there is a DP preceding it. Under the analysis proposed here, that makes perfect sense. In both sentences in (45) matrix T cannot Agree with any Goals within the embedded CP (whether that is a lexical DP or a *pro*), under locality conditions of cyclic syntax, e.g., Chomsky’s (2000) *Phase Impenetrability Condition*, which prohibits syntactic operations from targeting any positions lower than the Spec (technically called the *edge*) of the immediately preceding phase, where phases are CPs and v\*Ps. In that case default agreement comes to the rescue as a last resort. Notice that there is not even partial agreement here. Default agreement extends to the CLASS feature on T as well. Now, the question is why *yabdu* cannot appear with full agreement under the analysis presented here. For this, the answer is pretty simple: *yabdu* never licenses an external argument, hence the possibility of Merging a *pro* in Specv\*P does not arise, and full agreement is in turn impossible to obtain.

Notice, finally, that there is nothing idiosyncratically lexical or morphological about *yabdu*-type predicates that prevent them from surfacing with full agreement features. If any of these verbs can occur in a configuration where T can Agree with an accessible Goal, full agreement becomes possible in the SV order again. As it turns out, *yabdu* itself is one such verb when used as a linking predicate:

- (46) yabdu                    l- $\gamma$ awlaad-u                    mubtahiz-iin  
          seem 3sgmas                    the-boys-NOM                    happy-plmas ACC  
          “The boys look happy.”

There have been several proposals as to the right analysis of copular constructions. I will not dwell on this issue here (see Benmamoun 2000 for an extensive discussion). Rather, I will assume that a copular/linking verb selects a small clause (SC) as its complement, such that the structure of the sentence in (46) is roughly as in (47):

(47) [<sub>TP</sub> T [<sub>VP</sub> V<sub>LINK</sub> [<sub>SC</sub> SUBJ AP]]]

Given the structure in (47), it is easy to see that this is a configuration where Agree may take place between T and SUBJ within the SC complement of the linking verb V<sub>LINK</sub>. This predicts that partial gender agreement should be

obligatory in such cases, which is true: As (48a) shows, default gender morphology is ungrammatical with a feminine subject:

- (48) a. \*yabdu            l-fatayaat-u        mubtahi3-aatin  
          seem 3sgmas    the-girls-NOM    happy-plmas ACC  
       b. tabdu            l-fatayaat-u        mubtahi3-aatin  
          seem 3sgmas    the-girls-NOM    happy-plmas ACC  
           “The girls look happy.”

Similarly, given the analysis presented here, SUBJ within the SC in (47) may in principle be a *pro* associated with a peripheral DP, thereby predicting full agreement on *yabdu* as with other verbs, a prediction that is again borne out:

- (49) ʔal-ʔawlaad-u    yabdu-una        mubtahi3-iin  
       the-boys-NOM    seem 3plmas    happy-plmas ACC  
       “The boys, they look happy.”

Similar effects of obligatory default agreement also hold with regard to verbs expressing deontic modality in SA such as *yajibu*, *yanbaʔii*, *yataʔattam* (all man “must”), which all select a PP for their experiencer argument, as illustrated below for the verb *yajibu*:

- (50) a. yajib-u            ʔala    Zayd-in        ər-rahiil-u  
          must-3sgmas    on    Zayd-DAT    the-leaving-NOM  
           “Zayd has to leave.”  
       b. yajib-u            ʔala    Hind-i         ər-rahiil-u  
          must-3sgmas    on    Zayd-DAT    the-leaving-NOM  
           “Hind has to leave.”

Two facts to notice here: first, the modality verb *yajibu* always appears in the same form, irrespective of the gender status of the DP inside the experiencer PP argument. Second, the theme argument appears in nominative case. Equally important is that the occurrence of the experiencer DP in preverbal position does not change the agreement features on the verb:

- (51) a. ʔal-ʔawlaad-u    yajib-u            ʔalay-him    ər-rahiil-u  
       the-boys-NOM    must-3sgmas    on-them    the-leaving-NOM  
       “The boys have to leave.”  
       b. \*ʔal-ʔawlaad-u    yajib-uuna        ʔalay-him    ər-rahiil-u  
       the-boys-NOM    must-3plmas    on-them    the-leaving-NOM  
       “The boys have to leave.”

Notice also that such structures provide further evidence that SV orders are akin to CLLD structures, as evidenced by the presence of the resumptive pronoun within the experiencer PP. An Agree-based analysis, by contrast, can attribute the lack of full agreement to the impossibility of base-generating a *pro* subject in such structures, given that the experiencer argument is a PP, not a DP, thereby disallowing *pro* association. Notice, however, that the presence of nominative case on the theme argument seems to signal Agreement with T. That this is the case is supported by data in which the modality verb may optionally show gender agreement when the theme argument is feminine:

- (52) yajib-u/tajib-u            ʔala    Zayd-in        əS-Salaat-u  
       must-3sgmas/must-3sgfem    on    Zayd-DAT    the-praying-NOM  
       “Zayd has to pray.”

One possible analysis for this case of optionality of gender agreement under lack of adjacency between the verb and the agreeing DP may be in terms of a language-particular principle of the morphological component that forces gender agreement to appear only under adjacency, while allowing it not to surface if the adjacency requirement is not met. Why linear adjacency should affect a structural relationship such as Agree is an interesting topic that I will not pursue here, but see Soltan (in progress) for an elaborate discussion. What should be clear, however, is that this is another case where a Spec-head analysis seems quite inadequate to account for the observed facts of long-distance agreement and nominative case assignment.

In sum, the Agree-based account proposed in this paper not only accounts for the SV-VS order alternation and the agreement patterns associated with each order, but also for a range of semantic, syntactic and Case facts that distinguish between the two word orders. In addition, the analysis seems to extend naturally to account for cases of uniform default agreement with *seem*-type predicates and verbs of deontic modality, thereby providing further evidence that this approach to the investigation of agreement phenomena is indeed on the right track.

## 7. Conclusions

The goal of this paper has been to revisit the classical subject-verb agreement asymmetry from a minimalist perspective. It has been shown that the asymmetry is only apparent: surface full agreement is actually agreement with a VP-internal *pro* subject, whereas partial agreement is due to a default agreement option in the language for  $\phi$ -features valuation, though not for Class features. There is strong empirical evidence that the preverbal DP in SV structures is actually base-generated in its surface position rather than arriving there through movement. On a theoretical level, the analysis presented in this paper argues against a Spec-head approach to agreement and in favor of an Agree-based syntax, where agreement is induced through a “downward” relation between a functional head and the closest accessible Goal in its search domain. One consequence of such an analysis is that it allows us to account for cases where agreement is blocked due to opacity effects that render Goals inaccessible for Agree. We have seen evidence for that in seem-type predicates which in SA always select a CP, an opaque domain for Agree under phase impenetrability. Similar effects also hold with verbs of deontic modality which Agree with the theme argument, given that their experiencer arguments are always PPs, by assumption not targets for  $\phi$  or Class agreement. If correct, the analysis proposed here provides further evidence for a theory of grammar in which agreement is induced between syntactic elements, not as a reflex of a phrase-structure-theoretic relation, but in terms of a primitive built-in mechanism, Agree, specifically designed to do so.

### Notes

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<sup>1</sup> Throughout the paper I will use the abbreviations “VS” for constructions with a postverbal DP, and “SV” for constructions with a preverbal DP.

<sup>2</sup> The following abbreviations are used in the glosses of Arabic data. 1, 2, and 3=first, second, and third person, mas=masculine, fem=feminine; sg=singular; du=dual; pl=plural; NOM=nominative; ACC=accusative; GEN=genitive, DAT=dative.

<sup>3</sup> Aoun *et al* strictly reject the presence of a null expletive in VS orders.

<sup>4</sup> For an account of FCA, see Soltan (to appear).

<sup>5</sup> A similar problem arose even in strictly SVO languages with constructions where agreement seems to obtain between a verb and a DP in postverbal position, as in English expletive constructions for example:

- (i) There is/\*are a man in the room.
- (ii) There \*is/are two men in the room.

There have been several analyses of how such a case of “long-distance” agreement may be licensed in such constructions. An earlier analysis was to assume that the expletive and the associate form a chain of some sort, thereby allowing the agreement features on the associate to appear on the verb, and at the same time “transmitting” nominative case to the associate. Other later analyses included “covert” movement of the associate to SpecIP, so that the appropriate configuration for agreement and Case assignment obtains. Other analyses were also proposed, but the moral from all such proposals seemed pretty much the same: a Spec-head approach to agreement just could not account for these cases of “long-distance” agreement without extra machinery supporting it, e.g., expletive-associate chain, feature transmission, covert movement, feature movement, etc.

<sup>6</sup> But see Hornstein (2005) for a recent account of agreement and Case in terms of the Spec-head relation.

<sup>7</sup> Spell-out is the operation that strips away the phonological features of the structure and sends them to the phonological component.

<sup>8</sup> It should be mentioned that the point made here is simply to show how the generalization of the Spec-head relation to all agreement and Case licensing is not as straightforward as it might first seem, but rather requires additional assumptions in the two main components of the grammar: the lexicon and the computational system. It is an argument regarding the complexity of the “grammar,” and not necessarily that there is anything incoherent about checking theory or a two-cycle syntax per se.

<sup>9</sup> As noted in fn. 6, Hornstein (2005) proposes to derive the privileged status of the Spec-head relation from the inherent properties of structure-building operations such as Concatenate and Merge; see Soltan (in progress) for a discussion of Hornstein’s approach.

<sup>10</sup> EV = epenthetic vowel.

<sup>11</sup> The thetic-categorical distinction is a traditional grammar idea that has been first revived within generative grammar in Kuroda (1972). Other research in generative syntax that has made use of this distinction includes Raposo and Uriagereka (1995), Basilico (1998), among others.

<sup>12</sup> As the reader will eventually notice, the analysis presented here has a lot in common with the so-called incorporation analysis of the SVAA, proposed independently by both Fassi Fehri (1993) and Demirdache (to appear), which is also in essence the classical analysis offered by Arabic traditional grammarians. As the reader will notice, the main difference between the current analysis and the incorporation analysis is that the subject in SV structures is taken to be always a null subject with the morphological ending on the verb treated as a pure agreement marker, and not as an incorporated pronominal subject. As Benmamoun (2000) notes, one problem with the incorporation analysis is that it forces us to assume the presence of two subjects (and hence two clauses) in compound tense constructions where agreement is manifest on both the auxiliary as well as the main verb:

- (i) ʔal-ʔawlaad-u kaan-uu yaʕʕab-uuna fi l-hadiiqat-i  
 the-boys-NOM were-3plmas play-3sgmas in the-garden-DAT  
 “The boys were playing in the garden.”

In addition, the incorporation analysis, at least in its traditional version, also has to posit a null subject for third person singular verb forms since in such cases there is no apparent incorporated pronominal on the verb. Under the analysis presented here, this latter duality of the type of subject occurring does not arise, since the subject is always *pro*. Similarly, the multiple agreement phenomenon in compound tense constructions is readily explained in a monoclausal structure under the extra assumption that Asp(ect) in this language, like T, is also  $\phi$ -active, hence the multiplicity of agreement features on both the auxiliary and the main verb.

<sup>13</sup> That SpecIP may parametrically be an A'-position has been independently argued for by Mahajan (1990) for Hindi and Borer for Modern Hebrew (1995).

<sup>14</sup> I ignore here pro-drop languages of the Chinese-type, where agreement morphology is null, hence cannot serve as an identifier for *pro*. In such languages, *pro* identification has to proceed in a different fashion (see Huang 1984 for an elaborate discussion).

<sup>15</sup> Analytic forms contrast with “synthetic” forms, which do inflect for tense as well person and number features. The verb form for “put” in (32a) is an example of synthetic verbal morphology in Irish.

<sup>16</sup> Assume verb raising to  $v^*$  and T throughout, perhaps operations of the phonological component driven by the affixal properties of functional heads. Assume also an Agree relation between  $v^*$  and the object DP, whereby object-verb agreement and accusative case assignment obtain.

<sup>17</sup> It is not clear if we can derive this correlation between  $\phi$ -completeness and EPP from a deeper property of either T or the very little understood EPP. I'm merely assuming that it is a pure lexical property of T, which will differ, idiosyncratically, from one language to another.

<sup>18</sup> PCL=particle. In this particular example, *qad* seems to act as a modality marker.

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*Usama Soltan*  
*Department of Linguistics*  
*University of Maryland, College Park*  
*1401 Marie Mount Hall*  
*College Park, MD 20742-7505*  
*USA*  
E-mail: [usoltan@umd.edu](mailto:usoltan@umd.edu)