

# Application of Government and Binding Theory on Agreement in Modern Standard Arabic and Moroccan Arabic

Modi Fahad Al-Mendeel

Dept. of English Language and Literature, King Saud University

E-mail: [malmendeel@ksu.edu.sa](mailto:malmendeel@ksu.edu.sa)

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## Abstract

Modern Standard Arabic (MSA) has two basic patterns that are SVO and VSO. On light of Government and Binding Theory (GB), these word orders are illustrated in relation to the AGR Criterion that accounts for the restrictions on agreement associated with the two word orders in MSA. Examples from MSA and Moroccan Arabic (MA) with reference to the Expletive Hypothesis show some of the problems related to rich or full agreement in SVO structures. Also, the issue of poor agreement or partial agreement in VSO structures is extensively discussed in MSA and MA respectively. The researcher concludes with the evidence that AGR Criterion is responsible to regulate the features between AGRs and the NP-subjects in accordance with their positions in the sentence, whether in SVO or VSO structures.

**Keywords:** Government Binding Theory (GB), Modern Standard Arabic (MSA), Moroccan Arabic (MA), Agreement

## 1. Introduction

Modern Standard Arabic (MSA) is known of its complex agreement system. Word order affects the asymmetry relation of subject-verb agreement, and it is different from other patterns of agreement in the world's languages. Therefore, it presents a number of challenges to the theories of syntax.

MSA has two basic word orders and exhibits subject agreement morphology on the verb that shows an asymmetry between preverbal and postverbal subjects (Bahloul & Harbert, 1993). On light of Government and Binding Theory (GB), this paper presents the problems that can occur in agreement patterns found in MSA which are sensitive to the relative ordering of the subject and the verb in the sentence. The first section will introduce the two basic word orders of finite clauses in MSA and discuss the restrictions on agreement associated with them. The basic subject-verb agreement patterns in MSA are illustrated in this section. The second section tackles the problem of rich or full agreement in SVO structures. The third section discusses the issue of poor or partial agreement in VSO structures, and the fourth section concludes the paper.

## 2. Agreement patterns in Standard Arabic MSA

Any case of agreement/disagreement should be able to place three appropriate subcomponents of the agreement/disagreement system. These subcomponents are: the nature of the expressions that are in agreement, the features that are involved in the agreement, and the domain of the agreement which is the syntactic environment in which agreement occurs (Fassi Fehri, 1988, p. 130). In addition, it is important to identify the controller which is the basic element that determines the agreement and the target which is the element whose form is determined by government. Verb agreement is completely controlled by the subject. In the traditional Government and Binding Theory, the NUM marking on the subject dictates GEN features and PERS features whether the verb is singular, plural, or dual (Chomsky, 1981).

Furthermore, there are two main word orders in finite declarative clauses in MSA. These two patterns differ in the degree of the subject agreement with the verb. These are: SVO structure and VSO structure. In some languages, word order constantly affects agreement patterns. However, in other languages the word order infrequently affects the agreement, and it usually depends on certain situations (Corbett, 2006). Arabic is not the only language that exhibits preverbal agreement and postverbal agreement. Other languages with similar asymmetries are Russian, English, French, and Italian (Lorimor, 2007), Dutch (Ackema & Neeleman, 2003), Polish (Citko, 2005), and Fiorentino (Brandi & Cordin, 1989).

McCloskey (1986) claims that case assignment can occur in natural language, such as Arabic, either leftward or rightward. He claims that in SVO structures, the case is assigned leftward under a Spec-Head agreement relation or configuration, or it can be assigned rightward under Government. However, in VSO structures the case can be only assigned under Government.

### 2.1 SVO Structures in Arabic

First is the SVO structure. In SVO structures, the NP-subject is preverbal. This means that it



proposed a principle called AGR Criterion to regulate such kind of agreement. It is stated as the following (Fassi Fehri, 1993, p. 37):

“AGR Criterion. Rich AGR is licensed by an argumental NP in its Spec, and an argumental NP in Spec AGR is licensed by rich AGR”.

The first clause of the principle accounts for the ungrammaticality as represented in (1b) since AGR is not licensed. The second clause of the principle accounts for the ungrammaticality of (2b) since the argumental NP is not licensed in Spec AGR.

Although SVO structures in MSA make use of rich agreement patterns on predicates, there are some Arabic variations that exhibit rich agreement in both SVO structures and VSO structures as well. This can be problematic in the sense that it violates the AGR Criterion presented above. That is, rich agreement is used with preverbal subjects and postverbal subjects in the same way. For instance, Moroccan Arabic (MA) is a good example that represents this situation of rich agreement in SVO and VSO structures at the same time. Consider the following examples (Fassi Fehri, 1993, p. 37):

- (3) a. l-ulad            ja-w  
*the-boys            came-pl.*

The boys came

- b. ja-w            l-ulad  
*came-pl.        the-boys*

\*There came the boys

Although full agreement is mainly required for preverbal NP-subjects, Aoun, Benmamoun, and Sportiche (1994) say that some Arabic dialects like MA and Lebanese Arabic (LA) allow full agreement with postverbal subjects. In other words, the NP-subject in MA must agree in NUM with its predicate whether it is preverbal as in (3a) or postverbal as in (3b). Notice the ungrammaticality of the similar structure in (2b). In (2b) the NP-subject is postverbal and it agrees with the predicate in NUM and shows rich agreement, however, it is ungrammatical. Therefore, in order to account for this systematic difference, Fassi Fehri (1993) suggests that rich AGR needs to occur with preverbal as well as postverbal subjects. Accordingly, AGR Criterion is revisited as the following (Fassi Fehri, 1993, p. 38):

“Rich AGR is licensed by

- (a) an argumental NP in its Spec, or  
(b) by a chain of which one member is an argumental NP.”

According to the revisited principle, rich agreement is possibly licensed either through argumental NPs or through expletive chains which have one argumental member.

Accordingly, Fassi Fehri (1993) presents the Expletive Hypothesis that claims that AGR can be licensed by an expletive which is in its Spec. That is, SVO structures allow the use of

non-singular expletives in a Spec-Head configuration. The third person plural pronouns hum (4a) and hunna (4b) can occur in SVO grammatical structures. As Fassi Fehri (1993) suggests, the Expletive Hypothesis can account for on its own. Consider the following construction (Fassi Fehri, 1993, p. 40):

(4) a. hum l-junuud-u xaraj-uu li-ş-şalat-i

*they.m the-soldiers-nom went.out-3.pl.m to-prayer-gen*

It is the soldiers (who) went out to pray

b. hunna n-nisa?-u

*they.f.-nom the-women-nom*

It is the women. That's women

This example leads to the claim that expletives can license AGR feature values on the predicate, that are GEN and NUM features. Therefore, the expletive should be feminine when the verb carries feminine features and masculine when the verb carries masculine features. For instance (Fassi Fehri, 1993, p. 41):

(5) a. l-bint-u jaa?-at

*the-girl-nom came-f.*

The girl came

b. \*l-bint-u jaa?-a

*the-girl-nom came-m.*

The girl came

As these examples show, the claim that the expletive can trigger AGR feature values is not fully supported. That is, the difference of grammaticality between (5a) and (5b) indicates that Spec-Head configuration patterns check NUM values as well as GEN values.

In addition, SV structures in MA provide evidence that lexical expletives may or may not agree in GEN. Consider the following sentences (Fassi Fehri, 1993, p. 42):

(6) a. ra-haa hlima waqfa

*see-her Hlima standing*

It is Hlima standing up

b. ra-h hlima ja-t

*see-him/it Hlima came-f.*

It is Hlima (who) has come

Verbs in MA are very complex. In (6a) the expletive is feminine in form and it agrees in GEN

with the thematic subject, but the expletive in (6b) does not agree in GEN with the subject. This variation can be accounted for the stylistic effects or to show emphasis on the subject in (6a) but not in (6b). Diouny (2007) presents a study that shows that MA does not have dual or gender distinction in the plural forms of the verbs. However, sentence (6b) is in contrast to (5b). That is, the disagreement in GEN leads to ungrammaticality in (5b) but not in (6b) which is grammatical. Thus, this supports the view that AGR on the predicate does not necessarily agree with the form of the expletive that is in its Spec.

#### 4. An Analysis of VSO patterns

Unlike SVO structures, VSO structures in MSA exhibit partial or poor agreement (e.g., GEN only). That is, as mentioned earlier, the argumental subject must be located postverbally, that is in a position lower than AGR. MSA structures with postverbal thematic subjects show poor agreement where agreement in NUM is not allowed. Consider the following examples (Ryding, 2005, p. 66):

- (7) a. waSal-a l-ra?iis-aani ?ilaa dimashq-a ?ams-i.  
*arrived-sg the-two-presidents in Damascus yesterday*  
 The two presidents arrived in Damascus yesterday.
- b. \*waSala l-ra?iis-aani ?ilaa dimashq-a ?ams-i.  
*arrived-dual the-two-presidents in Damascus yesterday*  
 The two presidents arrived in Damascus yesterday

These examples show that the verb agrees in GEN only but not in NUM. This accounts for the ungrammaticality in (7b) since it exhibits rich agreement. Ryding (2005) explains that if the subject is dual or plural in MSA, the verb that follows agree in GEN only, but never in NUM. However, this is not the case in some Arabic variations. In MA, for instance, constructions with poor agreement are ungrammatical. Consider the following pair of sentences (Fassi Fehri, 1993, p. 37):

- (8) a. ja-w l-ulad  
*came-pl. the-boys*  
 \*There came the boys
- b. \*ja l-ulad  
*came-3sg the-boys*  
 \*There came the boys

Poor agreement is not allowed in MA when it is required in MSA. In addition, poor agreement is not allowed even with the existence of preverbal expletive. For example (Fassi Fehri, 1993, p. 37):

- (9) a. ha-hum ja-w l-ulad

*see-them came-pl. the-boys*

\*There came the boys

b. ra-h ja-w l-ulad

*see-him/it came-pl. the-boys*

\*There came the boys

In the previous set of constructions, sentences (9a) and (9b) show that plural thematic subjects take either a plural expletive or a singular one. However, agreement is not necessarily licensed by the expletives directly. Later on, an argument that supports the claim that AGR feature values are licensed only by an argumental subject will be discussed.

Mohammad (1990) claims that the essential MSA structure is SVO and VSO structures contain two subjects. These are: the real subject of the sentence and the expletive subject that licenses the agreement features on the verb. This expletive occurs only in a singular form whether it is masculine or feminine in GEN. Consider the following structures (Fassi Fehri, 1993, p. 39):

- (10) a. ?inna-hu      zaar-a-nii      talaat-u      šaa<sup>c</sup>irra-in  
*that-it                      visited-me      three-nom      poets.f.gen*  
 It visited me three poets
- b. ?inna-haa      zaar-at-nii      talaat-u      šaa<sup>c</sup>irra-in  
*that-her                      visited-f.-me      three-nom      poets.f.gen*  
 It visited me three poets
- c. \*?inna-hunna      zur-na-nii      talaat-u      šaa<sup>c</sup>irra-in  
*that-them.f.                      visited-pl.f.-me      three-nom      poets.f.gen*  
 It visited me three poets

These examples show that expletives are singular in form. This is to correlate to the possible values of AGR in VS sentences. If the expletive in the Spec-Head configuration can license poor agreement feature values, it is expected that poor agreement is not different from rich agreement in any way. However, this expectation is not true. That is, variation in GEN can occur in VS contexts with an expletive like the next example (Fassi Fehri, 1993, p. 41):

- (11) ?inna-hu      ?amat-u      llah-I      daahib-at-un  
*that-it/him      slave.f.-nom      Allah-gen      going-f.-nom*  
 It is Allah's slave going

In the previous example, the expletive is masculine in form, whereas the subject that forms an agreement chain with is feminine. This shows that the lexical expletive does not agree in

GEN with the subject. Therefore, it does not have a direct effect on licensing AGR feature values.

This indicates that the form of the expletive does not trigger AGR values for the verbs. As mentioned before in examples (9a) and (9b), this can be shown in MA as well in which lexical expletives may or may not be plural when the subject is plural. This provides more evidence for the role that expletives play in licensing AGR feature values.

Also, variation in GEN may occur between AGR and the subject in VS structures. For instance (Fassi Fehri, 1993, p. 41):

- (12) a. *ḍahab-a saa<sup>c</sup>at-un mina l-layl-i*  
*passed hour.f.-nom from the-night-gen*  
It has passes an hour of the night
- b. *qaal-a niswat-un fii l-madiinat-i*  
*said women-nom in the-city-gen*  
Some women in the city said...

In these examples, the subject is feminine although the verbs carry no feminine features. That is, there is no agreement in GEN yet the sentences are grammatical. This can be accounted as a case of null agreement in some Arabic structures.

Thus, as Fassi Fehri (1993) suggests, licensing of agreement occurs under specification. That is, AGR features have three degrees of activations or licensing. Accordingly, the first degree is that there is no activation of GEN or NUM features which results in null agreement (e.g., French, and some Arabic constructions), second is to have activation of GEN feature only which yields poor agreement (e.g., Arabic), and third is to have activation of both features, GEN as well as NUM (e.g., MA).

According to this specification, and as mentioned earlier, activation of NUM is not possible in postverbal structures in Arabic. However, it is obligatory in MA constructions. In addition, activation of GEN only occurs most frequently is MSA, but never in MA. Moreover, activation of GEN correlates with activation of NUM in MA. Therefore, poor agreement is impossible to occur with argumental subjects in MA. This means that the presence of an argumental subject leads to the activation of AGR. That is, either when the subject is in the Spec of AGR directly or through an expletive chain that involves the Spec of AGR position and a postverbal position.

In addition, AGR Criterion accounts for this AGR specification. That is, both specified patterns that involve NUM as well as unspecified patterns that exhibit null agreement exist in Moroccan Arabic contexts. On the other hand, MSA exhibits rich agreement that involves NUM and GEN specifications. This rich agreement is only licensed through Spec-Head configurations. In addition, the poor agreement in MSA, that is in GEN only, is triggered or licensed through postverbal chains. Therefore, in MSA, poor agreement shares with rich

agreement the property of agreement specification that has to be licensed by an argumental NP.

Furthermore, Fassi Fehri (1993) uses the expressions R-NPs and R-chains to refer to argumental NPs or chain in order to avoid ambiguity with the term “argument” in the literature. Accordingly, it is important to figure out how do subjects of R-chains and AGR feature specifications interact. That is, from the review of the previous examples examined in MA, it is clear that rich agreement is licensed when there is either an R-NP or an R-chain. In addition, MSA examples show that rich agreement is licensed by an R-NP in the Spec of AGR, and poor agreement is licensed through an R-chain.

Accordingly, specified AGR relationships are regulated through the AGR Criterion. However, expletive chains that are examples of R-chains may or may not allow null agreement (as in MA). Therefore, the AGR Criterion has to be revised as the following (Fassi Fehri, 1993, p. 44):

“AGR Criterion (revised).

- a. A specified AGR is licensed only by
  - (i) an R-NP in its Spec or
  - (ii) an R-chain of which one member is in its Spec.
- b. An R-NP in Spec of AGR is licensed only by rich AGR.”

In this revised AGR Criterion, AGR features are licensed either directly through Spec-Head features sharing, or indirectly through R-chains. Accordingly, MA applies both options in the revised AGR Criterion, whereas MSA applies the first option of rich agreement and the second option is only valid for poor agreement. Therefore, AGR Criterion regulates the features shared between AGRs and subject NPs as well as their positions in the sentence with respect to each other.

## 5. Conclusion

To conclude, this paper presented the basic MSA patterns; SVO and VSO respectively. On light of GB, I tried to illustrate the word orders that account for the different types of agreement found in MSA. That is, the restrictions on agreement associated with the two word orders in MSA have been discussed in relation to the AGR Criterion introduced by Fassi Fehri (1993). In addition, the problem of rich or full agreement in SVO structures is represented through various examples taken from MSA as well as MA with reference to the Expletive Hypothesis. Also, the issue of poor agreement or partial agreement in VSO structures is extensively discussed. Finally, the paper concludes with the evidence that AGR Criterion is responsible to regulate the features between AGRs and the NP-subjects in accordance with their positions in the sentence.

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