

# Agreement Asymmetries in Arabic from a Categorical Perspective

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## Abstract

Agreement asymmetries are the most debated issue in Arabic linguistics. Even though the facts suggest a unified treatment based on the properties of agreement, most of the researchers in this field don't take into account the essential difference between grammatical agreement and anaphoric agreement. We do propose such a distinction to explain these asymmetries and we propose an analysis that we implement in the ACCG framework.

## 1. Agreement Asymmetries

When dealing with the agreement system of Standard Arabic, one cannot do so without having to investigate into other morphosyntactic related issues, such as word order, affixation, clitics, etc. When we deal with the agreement asymmetries, the study of these phenomena is likely to be the only way to go in order to find solutions. In this paper, we deal with these asymmetries in the ACCG framework and we propose some solutions based on observations of other Arabic morphosyntactic phenomena : (i) **Order Asymmetries:** These asymmetries can be observed in sentences where the first component is a nominative noun phrase or a verb. In the first case, the agreement is said to be rich. However, when the first component of the sentence is a verb, the agreement in number is not allowed (poor agreement). (ii) **Categorical Asymmetries:** The order asymmetries are only observed when the component placed preverbally or postverbally is a noun phrase. When this component is an independent pronoun, the agreement patterns show to be different. When the preverbal nominative is an independent pronoun, the agreement shows to be rich as it is the case when this component is a noun phrase. However, when this pronoun is postverbal, the agreement is also rich.

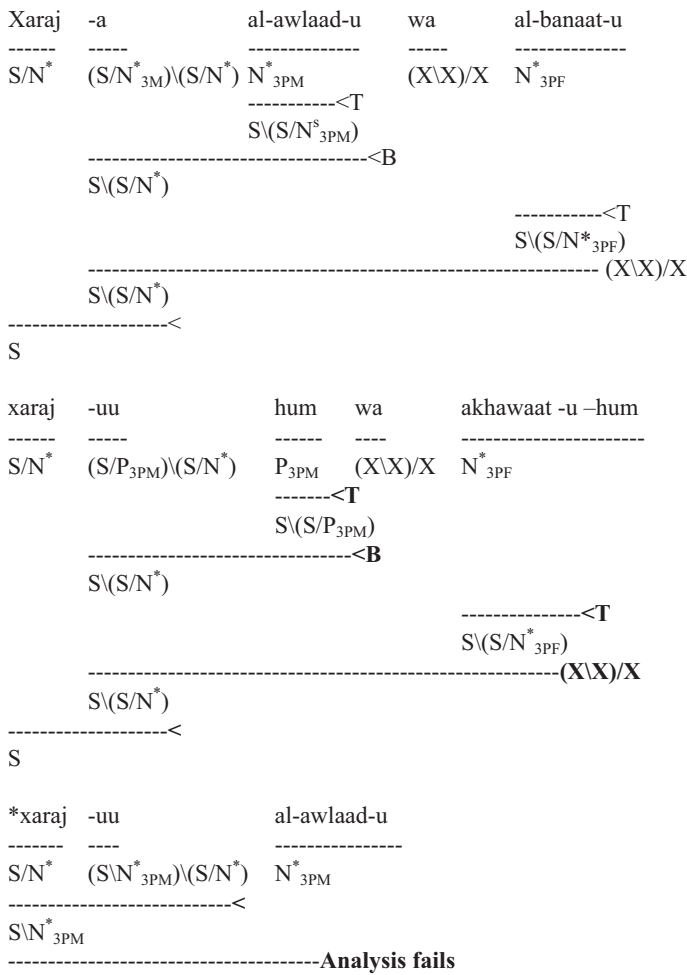
The solution we propose for these agreement asymmetries is based on three complementary hypotheses: (i) **1<sup>st</sup> hypothesis:** Contrary to what is admitted by some authors in the generative framework of Chomsky, there is no genuine SVO configuration in Arabic. The preverbal noun phrase (or independent pronoun) is a topic and not a subject. This means that the only subject/verb agreement relation in Arabic is observed in the VSO configurations.

We prove that this hypothesis is true when we apply the independently motivated tests proposed by Li and Thompson (1976) to make the distinction between subjects and topics. In Arabic, topics and verbs agree by means of the incorporated pronoun attached to the later and redundantly expressing the morphosyntactic features of the former. (ii) **2<sup>nd</sup> hypothesis:** Agreement in the so-called SVO configurations is anaphoric, hence between a noun phrase (or an independent pronoun) and an incorporated pronoun. The subject marker in this configuration is an incorporated pronoun anaphorically bound to the preverbal component. That's why the pronoun agrees in all morphosyntactic features (gender, number and person) with the noun phrase. (iii) **3<sup>rd</sup> hypothesis:** Agreement in the VSO configurations is a grammatical one. This is the only context in which there is an agreement relation between subjects and verbs in Arabic. In this particular configuration, the subject marker is proven to be an agreement marker and not an incorporated pronoun. The grammatical agreement is also shown to be poor (hence only in gender) in this context.

## 2. Categorical Grammar Analysis

Category  $N^*_{3PM}$  assigned to *al-awlaad-u* (example 4) typifies a noun phrase of 3<sup>rd</sup> person plural masculine.  $N^*_{3PF}$  assigned to *akhawaat-u-hum* (example 2) typifies a nominal phrase of 3<sup>rd</sup> person plural feminine.  $N^*_{3M}$  typifies a noun phrase of 3<sup>rd</sup> person masculine and whose number is knowingly omitted. This category is used as part of the complex category  $(S/N^*_{3M}) \setminus (S/N^*)$  assigned to the marker *-a* (example 5). This marker is considered as an operator whose operand is the verb *xaraj*. The result of the application of the marker *-a* to the verb *xaraj* would be an operator whose operand would be either singular or plural. The marker *-uu* in the sentence (4) is an incorporated pronoun that agrees in all morphosyntactic features (gender, number and person) with the preverbal noun phrase *al-awlaad-u*. We establish this agreement through the assignment of types  $N^*_{3PM}$  and  $(S/N^*_{3PM}) \setminus (S/N^*)$  respectively to *al-awlaad-u* and *-uu*. In fact, *-uu* is considered as an operator that applies to the verb *xaraj* in order to construct an operator  $(xaraj -uu)$  of type  $S/N^*_{3PM}$  whose operand is a noun phrase (of the 3<sup>rd</sup> person plural masculine) on its left. In sentence (5), the marker *-a* agrees

only in gender with the subject positioned on the right of the verb. *-a* is considered as an operator that applies to the verb *xaraj* in order to construct an operator (*xaraj -a*) of type  $S/N^*_{3M}$  whose operand is a noun phrase (the subject of the 3<sup>rd</sup> person masculine) on its right. This noun phrase can be either plural or singular. The sentence (3) is ungrammatical. Its categorial analysis fails when one try to apply (*xaraj -uu*) to the subject *al-awlaad-u*, (*xaraj -uu*) being the result of the application of the marker *-uu* to the verb *xaraj*. As in (7), *-uu* is still considered as an incorporated pronoun that agrees in all morphosyntactic features (gender, number and person) with a preverbal noun phrase. But in (3) the noun phrase (the subject) *al-awlaad-u* is postverbal. That is why the analysis of the sentence fails. When the preverbal nominative (*hum*) is an independent pronoun, as in (6), the agreement with the marker *-uu* is rich. This agreement is implemented by assigning types  $P_{3PM}$  and  $(S/P_{3PM})/(S/N^*)$  respectively to *hum* and *-uu*. The agreement is also rich in (7) when the pronoun *hum* is postverbal. However, the type  $(S/P_{3PM})/(S/N^*)$  assigned to *-uu* allows to construct one complex operator (*xaraj -uu*) whose operand is positioned on its right not on its left as in (6). For sentences with



coordination (1) and (2), the same rules apply. Thus, when the subject (in the first member of the coordination) is a noun phrase which occurs after the verb, the agreement is poor (just in gender), whereas when it takes the form of an independent pronoun, the agreement is rich (in gender and number). We express this by assigning types  $(S/N^*_{3M})/(S/N^*)$  and  $(S/P_{3PM})/(S/N^*)$  respectively to *-a* and *-uu*. In the first case the agreement does not take in account the number but only the gender whereas in the second case the agreement takes in account the gender and the number. In summary, when the agent responsible for the verbal action is a noun phrase, the categorial type  $(S/N^*_{3PM})/(S/N^*)$  is assigned to the suffix *-uu* (for plural) attached to the verb. This type allows to validate sentence only if the noun phrase is preverbal. The categorial types  $(S/N^*_{3M})/(S/N^*)$  or  $(S/N^*_{3M})/(S/N^*)$  are assigned to the suffix *-a* (for singular) depending on whether the noun phrase is preverbal or postverbal. When the agent responsible for the verbal action is represented by an independent pronoun, the categorial types  $(S/P_{3PM})/(S/N^*)$  or  $S/P_{3PM})/(S/N^*)$  are assigned to the suffix *-uu* (for plural) attached to the verb, depending on whether the pronoun is preverbal or postverbal.

