

# Agreement and Complex Predicates in Modern Standard Arabic

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## 1 The Phenomenon and Previous Analyses

Much recent research in Modern Standard Arabic syntax has focused on asymmetries in verbal agreement (see [6] for an overview). While Arabic verbs display full agreement in number and gender with subjects if they are preverbal (1) or pronominal (including *pro* and gaps), agreement with postverbal nominal subjects is restricted to gender (2) or can even be realized by default masculine agreement (3) as with subjectless verbs. In addition, post-verbal coordinated subject NPs have first-conjunct agreement (4).

- (1) al-'awlaadu            jaa'-uu.  
the-children.PL.M came-3rd.PL.M  
'The children came.'
- (2) jaa'-a                l-'awlaadu.  
came-3rd.SG.M the-children.SG.M  
'The children came.'
- (3) ya-ta'allamu    n-nisaa'u  
3rd.SG.M-learn the-women.PL.F  
'The women learn.'
- (4) jaa'-at            l-fataatu    wa-l-fataa.  
came-3rd.SG.F the-girl.SG.F and-the-boy.SG.M  
'The girl and the boy came.'

[8], followed by [11], observes that Arabic allows preverbal expletives which may agree with the subject NP in gender, but never in number and whose case marking equals that of subjects. He therefore concludes that the verb agrees with the preverbal expletive if the subject is postverbal. This idea, however, has the problem that the degree to which the verb and the expletive agree with the subject are not necessarily identical. It is possible for a verb to have gender agreement while the expletive has default agreement:

- (5) inna-hu                jaa'-at            n-nisaa'u.  
indeed-EXPL.3rd.SG.M came-3rd.SG.F the-women.PL.F  
'The women came.'

Other analyses of impoverished agreement assume that the different configurational position of pre- and postverbal subjects is responsible for the different treatment of gender and number in agreement. This analysis cannot, however, explain why there may be full agreement with subjects preceding an adjectival

predicate ([10], 28-29; [4], I 24-27; [3]) and why impoverished agreement with pronouns is possible for adjectival predicates. Furthermore, the explicit HPSG formulation of this idea by [2] runs into problems when first conjunct agreement is taken into consideration since it is not possible to derive the phi-features of both full and impoverished agreement simply from the phi-features of the entire NP. [5] develop an analysis of first conjunct agreement in Arabic which assumes that the underlying structure is a clausal conjunction, but this idea has been demonstrated to be empirically problematic for Modern Standard Arabic (but apparently not for some other varieties) by [7].

An additional challenge for any theory of agreement in Arabic comes from complex predicates which are composed of a matrix verb, an embedded clause and optionally an NP which is apparently raised from the subject or topic position of the embedded clause. If an NP is raised, agreement is obtained as known from simple predicates. If there is, however, no overt NP raising, the matrix verb may show impoverished agreement with the subject of the embedded clause which presents a challenge for purely local theories of Arabic agreement.

## 2 An HPSG Account

Following traditional assumptions of HPSG ([9]), I assume that agreement is achieved by structure-sharing between a verb and its subject argument. The case of complex predicates with a complex subject NP shows that the phi-features both for impoverished and for full agreement must be present in the feature structure of the subject NP, since it is impossible to derive both feature sets from a single one because of first conjunct agreement. This yields the following feature geometry for the type *agr* of the agreement feature of subject NPs:

$$\left[ \begin{array}{ll} agr & \\ \text{REDUCED} & \textit{phi} \\ \text{FULL} & \textit{phi} \\ \text{INDICES} & \textit{list(index)} \\ \text{INDEX} & \textit{index} \end{array} \right]$$

REDUCED and FULL contain the phi-features for impoverished and full agreement, respectively, INDEX is the index of the entire NPs, while INDICES contains the indices of the conjoined NPs if the NP is complex. Then a set of constraints is introduced to link the phi-features of the verb either with the REDUCED or FULL features of the subject depending on the type of the predicate and the position of the subject, and to link REDUCED and FULL with INDICES and INDEX, respectively. This analysis accounts for agreement asymmetries including first conjunct agreement in simple verbal and adjectival predicates, but not for the apparent raising of agreement in complex predicates. This can be accounted for by a modified version of the original 'expletive hypothesis' of [8]. In this modified version, the matrix verb raises a subject-like NP from the valence list of the embedded verb. The raised NP, which may either be a subject argument or an expletive, becomes the subject of the matrix verb which thus agrees with the raised NP. Thus, raised expletives may mediate impoverished agreement with the subject of an embedded verb.

## References

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