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POSTVERBAL SUBJECTS IN ARABIC AND THE THEORY OF AGREEMENT

1. THE PROBLEM

Standard Arabic exhibits an asymmetry between preverbal and postverbal subjects with respect to the realization of subject agreement morphology on the verb. The basic asymmetry in Arabic agreement is illustrated by the contrast between (1a) and (1b), (2a) and (2b). Arabic verbs agree in number with preverbal but not postverbal subjects.

(1) a. qadim-a (/*qadim-uu) al-ʔawlaadu.
came-3MS came-3MPL the-boys-3MPL
'The boys came.'

b. ʔal-ʔawlaadu qadim-uu (/*qadim-a).
the-boys-3MPL came-3MPL came-3MS
'The boys came.'

(2) a. qadim-at (/*qadim-ataa) al-bint-aani.
came-3FS came-3FD the-girl(F)-3D
'The two girls came.'

b. ʔal-bint-aani qadim-ataa (/*qadim-at).
the-girl(F)-3D came-3FD came-3FS
'The two girls came.'

These same examples show that postverbal subjects, as well as preverbal subjects, control agreement on the verb with respect to the features of gender and apparently person (see below). These facts are well known, and have been analyzed in an extensive literature which we cannot review here (cf., e.g., Fassi-Fehri (1984), Abd El Moneim (1989), Mohammad (1990), Benmamoun (1990), (1992a), Bahloul & Harbert (1992), Aoun, Benmamoun & Sportiche (1994)). In this paper, we will limit ourselves to comparing three different analyses of this phenomenon, whose proper characterization is, as we will see, a key problem in the investigation of the syntax of agreement in universal grammar.

The first approach, which we will label the Government-Agreement (GA) approach, holds that SV and VS sentences exhibit different agreement patterns.

Jamal Ouhalla and Ur Shlonsky (eds.), Themes in Arabic and Hebrew Syntax, 45-70
because agreement is effected under different syntactic conditions. In the former, it encodes a Spec-Head relationship between the subject and the agreeing verb, while in the latter it is effected under a relationship of government between those elements. The difference in agreement morphology results because different feature sets are accessible under these two types of agreement. This account is represented, for example, by Benmamoun (1992a) and Bahloul & Harbert (1992). The latter assumed a representation like that in (3) for DPs headed by lexical nouns.

(3) \[
\begin{array}{c}
\text{DP} \\
\downarrow \\
D' \\
\downarrow \\
D^0_{[\epsilon, \text{DEF}]} \\
\downarrow \\
\text{NumP} \\
\downarrow \\
\text{Num'} \\
\downarrow \\
\text{Num}^0_{[\epsilon, \text{PL}]} \\
\downarrow \\
\text{NP} \\
\downarrow \\
\text{N'} \\
\downarrow \\
N^0_{[\epsilon, \text{FEM}]} \\
\end{array}
\]

We claimed there that gender features are inherent features of lexical nouns. In languages with gender distinctions, nouns are typically associated with an invariant gender. On the other hand, definiteness, for example, is not an inherent feature of lexical head nouns, but a feature of the functional category Determiner, and therefore of DPs. A number of analyses (including Valois (1990) and Ritter (1990)) have also claimed the same status for number. We refer the reader especially to Ritter (1990), who argues at length for Hebrew that gender inflection is assigned to nouns through lexical affixation, while number inflection is associated with the head of a functional projection Num, and acquired by nouns through syntactic head raising. In this representation, therefore, the gender features, as inherent features of nouns, are associated with the bottommost layer of projection in this projection system (the Base of the projection system, in the terms of Bahloul & Harbert). Number and Definiteness features, on the other hand, are associated with higher level functional heads in the projection system. According to the hypothesis we advanced, only features of the Base of a projection system are visible for purposes of agreement under government, as specified by the principle in (4), while all (\Phi-features are visible for Spec-Head agreement.

(4) **The Government Agreement Constraint**: Only those features which originate on the Base of a Projection System are evaluated for agreement under government.
This yields the observed asymmetry between gender and number agreement in Arabic. Gender features originate on lexical Ns, hence on the Bases of Projection Systems. They are thus visible for agreement under government. Number features are features of the functional head Num. They are accordingly not features of the Base node in Projection Systems terminating in lexical Ns, and are invisible to such agreement.3

The second approach to be considered holds that the asymmetry in agreement morphology reflects the level at which agreement is checked. This approach is exemplified by Parkinson (1995). Parkinson’s account is built on two core assumptions of the Minimalist framework of Chomsky (1993). The first of these is that all agreement is checked under the Spec-Head agreement relation, at some level. There is no agreement under government (the government relation having no status in that framework.) The second assumption is that if the morphological features in question are ‘strong’ and therefore potentially visible to PF, movement to Spec must take place prior to Spell-Out (i.e., in the observable structure) so that this checking configuration can be met and the features erased through checking before PF, while if the features are ‘weak’, movement is not forced prior to PF, and therefore, by the Principle of Procrastination, is unable to take place prior to PF. Checking of weak features thus takes place at LF, through post-phonological and therefore covert movement to Spec. Parkinson identifies number agreement morphology with strong agreement features in Arabic and gender agreement morphology with weak agreement features, thereby deriving the agreement asymmetry in SV and VS clauses. In SV clauses, the strong features associated with number morphology on the verb force overt movement to Spec,AgrS, while in VS clauses, with no number morphology and consequently weak agreement features, movement of the Subject to Spec,AgrS is delayed until LF, yielding the VS order. We will refer to an account along these lines as the Level of Licensing (LL) approach.

A third account of the agreement asymmetry is advanced in Aoun et. al. (1994), which shares with the preceding account the assumption that agreement features are licensed only under the Spec-Head relation. It differs from the former, however, in claiming that the licensing of features may be accomplished by Spec-Head agreement relations obtaining at intermediate points in the syntactic derivation. Thus, for example, the gender agreement found in (2a) (repeated) is licensed because the subject and the verb were in a Spec-Head relation in a lower projection, prior to the movement of the verb to a head position above the subject.

(2) a. qadim-at (/*qadim-ataa) al-bint-aani.
   came-3FS came-3FD   the-girl(F)-3D
   ‘The two girls came.’

Consider their tree (8), given here as (5).4
The subject of (2a) agrees with the verb in gender by virtue of the fact that they were in a Spec-Head relation in IP, before the verb moved to the higher functional head position, \( F^0 \). The reason they do not agree in number, according to Aoun et. al., is that agreement information may be 'lost' on heads (or XPs) when they undergo further movement which takes them out of the Spec-Head relationship in which that agreement is licensed. Individual grammars apparently can differ with respect to whether they utilize this option. In Standard Arabic, if the verb is moved to \( F^0 \), leaving the subject behind, the number information 'gathered' by that verb in \( I^0 \) is lost, resulting in default singular number agreement, while such inherent agreement features as gender are retained. If, however, the subject is also moved to Spec,\( F^0 \), then full agreement will obtain, apparently because agreement information cannot be 'lost' when the relevant Spec-Head relation exists in surface structure.\(^5\) We will refer to this as the Agreement Loss (AL approach).

2. OTHER PROPERTIES OF ASYMETRICAL AGREEMENT

Each of these accounts is capable of characterizing the basic agreement asymmetry illustrated in (1) and (2). There are, however, a number of other features of the Arabic agreement system which are potentially more revealing with respect to the differences between them. We will introduce these, with some comment, in the present section, and will consider their overall implications for the theory of agreement in section (3).

2.1. VS clauses with number agreement

As pointed out in Bahloul & Harbert (1992), the generalization that verbs in Arabic do not agree with postverbal subjects with respect to number is not quite correct. In particular, pronominal subjects in Standard Arabic control agreement even when they are postverbal. The demonstration of this is not quite straightforward, since
pronoun subjects in Arabic typically cannot appear postverbally, but are subject to obligatory fronting. They can be enabled to remain postverbal, however, by conjoining them with Lexical DPs. As (6) shows, the verb then does agree in number with the pronoun.6

(6) xaraj-uu/*xaraj-a [hum wa Sami].
    left-3MPL/left-3MS [they and Sami]
    'They and Sami left.'

Note that agreement here is not with the whole conjoined postverbal subject, but only with the first conjunct, as will be demonstrated and discussed below.

Cases like these are straightforwardly problematic for the LL approach as we have represented it, since if number agreement is identified as the strong agreement which forces movement of the subject to the preverbal Spec position in the overt syntax, the subject should not be able to remain postverbal when the verb has number agreement features. This problem does not arise for the GA or AL accounts, as we have represented them above, since the feature number has a different status on pronouns than on lexical DPs: number is an inherent feature of pronouns, but not of lexical nouns. In the terms of the account of Bahoul & Harbert, the crucial difference between plural lexical DPs and plural pronouns is that pronouns, following Ritter (1990) and others, are taken to be DPs or NumPs without internal structure, which are directly associated with Person, Gender and Number features. This is schematized in (7b) and (7c). Since they do not select NP complements, these DPs or NumPs terminate Projection Systems, and therefore count as Bases of those Projection Systems. Their person/number features are therefore Base features. (Following Ritter, we hold that person features have only the values [±1 PERS] and [±2 PERS], third person being a default). Thus, lexical DPs, which are not differentiated for person, do not have person features. These features are only associated with pronouns, where they are inherent features of the Base of the projection system. See also Lapointe (1984:72). It is accordingly predicted, given Principle (4) that number features on pronouns, but not number features in lexical DPs, will be visible for agreement under government, and that person features on pronouns will also be visible for this kind of agreement.

(7)    a. lexical NP    b. Pro-DP    c. Pro-NumP

\[
\text{Num'}\quad \text{DP}\quad \text{DP} \\
\text{Num}^{0}_{[\pm \text{PL}]} \quad \text{NP} \quad \text{[+PL][\pm \text{PERS}]} \\
\text{D} \quad \text{NumP}_{[\pm \text{PL}]} 
\]

This contrast between number on pronouns and number in DPs translates straightforwardly into the AL account of Aoun et. al.; number is an inherent feature of pronouns but not of lexical nouns. Number features on verbs which are licensed by agreement with lexical DPs are therefore subject to agreement loss when the verb is moved out of the licensing Spec-Head relation since they are not inherent, but not