Several recent analyses of Arabic first conjunct agreement (FCA) employ novel syntactic operations that may occur late in a syntactic derivation (Soltan 2007, Larson 2013). I show that these “late operations” analyses are empirically insufficient by failing to capture cases in which FCA and agreement with the full, conjoined subject DP (full agreement) occur on distinct elements within the same clause (mixed agreement). These cases are straightforwardly captured through an interaction between constraints on Agree and movement. I apply this analysis to both non-standard dialects of Arabic, for which I use Lebanese Arabic (LA) as a representative example, and Standard Arabic (SA).

In LA, verbs obligatorily realize full agreement with pre-verbal conjoined subjects (1a). In VS sentences, verbs may realize either FCA or full agreement (1b). In clauses containing an auxiliary, subjects may appear clause initially before the auxiliary (2a) or medially between the auxiliary and verbal (2b). The lexical verb always realizes full agreement, but the auxiliary optionally realizes FCA if it precedes the subject (2b), resulting in mixed agreement. If the auxiliary follows the subject, it must realize full agreement (2a).

My analysis of the above data assumes the clause structure for Arabic proposed in Tucker (2011), shown in (3), and an interaction between constraints on Agree and movement discussed by van Koppen (2012) in the case of Dutch. In the absence of an auxiliary, verbs raise to T. When present, auxiliaries occupy T and verbs raise to an Asp head between T and v. Subject DPs must raise at least to [Spec, Asp] (1b, 2b) and may optionally raise to [Spec, TP] (1a, 2a).

(3) If Aux occupies T, Verb remains in Asp; subjects raise to [Spec, Asp] obligatorily and to [Spec, TP] optionally.

\[ \text{TP} \{ \text{Spec TP Subject} \} \{ \text{I} \text{Auxiliary/Verb} \} \{ \text{Spec Asp } \text{Subject} \} \{ \text{Asp } \text{Verb} \} \{ \text{VP} \} \{ \text{Spec VP Subject} \} \{ \text{Spec VP } \text{Verb} \} \{ \text{VP} \} \{ \text{VP} \} \]

Subject-verb agreement is realized via the operation Agree, wherein functional heads probe their c-command domains for the closest node with valued φ-features (Chomsky 2000, Chomsky 2001). Because an auxiliary and verb may have different realizations of agreement (2b), I assume that T and Asp are independent φ-probes. In a conjoined subject DP, the first conjunct and the full conjunction are equally local to a φ-probe since neither asymmetrically c-commands the other and no node c-commands one but not the other. Thus, a φ-probe may Agree with either the first conjunct or full conjunction (1b, 2b).

Movement of a DP to [Spec, XP] depends upon an agreement relationship between the moved DP and Xφ (Chomsky 2000,2001; Preminger 2011). Such movement makes full agreement with Xφ obligatory (1a, 2a), since agreement with a first conjunct followed by movement of the agreed-with DP would incur a coordinate structure violation. Assuming c-command corresponds to precedence (Kayne 1994), this analysis correctly predicts that FCA is optional when subjects follow a φ-probe, either T or Asp, but that full agreement is otherwise obligatory.

In contrast, the late operations approaches of Soltan (2007) and Larson (2013) assume that some operation O must occur in order to make a full, conjoined DP visible to a φ-probe. O can occur only once, but it may occur either before or after Agree. If O occurs before Agree, full agreement is obligatory; if it occurs after Agree, only the first conjunct is available for Agree. Now consider these analyses’ predictions for (2b). O must occur before agreement with Asp to ensure full agreement with the main verb. Since O occurs before agreement with Asp, O occurs before agreement with T. This forces full agreement with the auxiliary and wrongly predicts the impossibility of mixed agreement.

The account presented here extends to SA, as FCA phenomena in SA mirror the LA data in (1) and (2). However, the analysis does not extend to partial agreement (PA) in SA, wherein non-pronominal plural subjects trigger full agreement when they are pre-verbal (4a), but agree in gender only when they are post-verbal (4b).

(4) a. At-tulaab yaadar-uu/*-a the-students left-3MP/*-3MS
the-students left.

b. Yaadar-uu/*-a at-tulaab

Although the data in (4) are superficially similar to those in (1) and (2), I argue that PA is an independent phenomenon. I assume that FCA occurs in SA as described above and that PA is a post-syntactic process that prevents realization of verbal number features (Ackema and Neeleman 2003, Walkow 2010). This predicts that post-verbal conjoined subjects with feminine first conjuncts and masculine second conjuncts may realize feminine singular agreement (via FCA) or masculine singular agreement (via full agreement and PA). This prediction is borne out by data from the Penn Arabic Treebank (Maamouri et al. 2010).