On the (non)-relation between C^0 and T^0

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Chomsky (2007, 2008, 2013) proposes that the Agree (ϕ-) and Tense features associated with the inflectional system are not an inherent property of T (also Richards 2007; Miyagawa 2010; Ouali 2008); instead T *inherits* these features from the phase head C. Zwart (1993, 1997, 2001) maintains the opposite view and suggests that the ϕ-set on C is simply a duplication of T's valued ϕ-set (also Hoekstra & Marácz 1989; Watanabe 2000); C acquires its agreement features during the derivation by movement of T (AgrS) to C. Common to both approaches is the hypothesis that a single head is the locus of the ϕ-features, and the other head acquires them in the derivation. This study investigates the putative relation between C and T on the basis of three configurations in Arabic varieties, and challenges this relation: (i) C and T can agree with the same goal, but bear different values (cf. Haegeman & Van Koppen 2012), (ii) C and T may agree with different goals, (iii) embedded constructions with finite T but no higher projections, e.g. Neg or C. These phenomena provide robust evidence that C and T must each be endowed with a discrete set of ϕ-features.

i. C and T agreeing with the same target. Conjunct agreement in many Arabic varieties follows a generalization whereby a conjoined target preceding the agreement controller triggers resolved agreement (RA); whereas the target following the controller can trigger first conjunct agreement (FCA) or RA, in (1).

(1) $X^0_{\{\textbf{FCA}/\text{RA}\}}$ >> coordinated target >> $Y^0_{\{\text{RA}\}}$

This pattern also holds in Sason Arabic (SA); a conjoined subject between an embedded C and T, with the lexical verb in T, (2). (T and C agreement also differ in that lack of agreement is available for C, but not T; neither allow 3sg.m as a default.)

(2)   saddıx-tu   {le   / le-nu   / le-nen} [sabi-ma u   bınt-ma] {ayal-o / *ayal   / *ayal-e} asal.
      believed-1SG {that.∅ / that-3M / that-3PL} [boy.M-a and girl-a]PL {ate-3PL / *ate.3M / *ate-3F} honey

      'I believed that a boy and a girl ate the honey.'   (*C-ConjS-V-O*)

In complex tenses, an auxiliary appears in T and the lexical verb is in Asp (e.g. Benmamoun 2000; Tucker 2011); C, T, and Asp are all agreement probes. Strikingly, the agreement values of C and T vary independently, even when the subject (in AspP) follows both. Thus, when T shows RA, C can show default or FCA or RA, (3a); when T shows FCA, C can show default or FCA or RA, (3b).

(3)   a. saddıx-tu   {le   / le-na   / le-nen} kan-o   [bınt-ma u   sabi-ma] kı-y-ayl-o.
         believed-1SG {that.∅ / that-3F / that-3PL} aux.PST-3PL [girl.F-a and boy-a]PL PST-3-eat-PL

         'I believed that a girl and a boy were eating.'
      b. saddıx-tu   {le   / le-na   / le-nen} kan-e   [bınt-ma u   sabi-ma] kı-y-ayl-o.
         believed-1SG {that.∅ / that-3F / that-3PL} aux.PST-3F [girl.F-a and boy-a]PL PST-3-eat-PL

         'I believed that a girl and a boy were eating.'   (*C-Aux-ConjS-V-O*)

ii. C and T agreeing with different targets. In embedded structures, both for VSO and SVO orders, C^0 which otherwise agrees with the subject, (4a), agrees with a fronted object (be it a CLLD-ed object, (4b), or a focused object, (4c). (4) also shows that C agrees with the closest goal in its c-command domain; it cannot skip over a structurally higher target and agree with the subject. The verb agrees with the subject.

(4)   a. saddıx-tu   {le   / le-nen} [calabma zɣar]   qaraf-o   mase.
         believed-1SG {that.∅ / that-3PL} [some   children]PL broke-3PL table.F

         'I believed that some children broke the table.'
      b. saddıx-tu   {le   / le-na   / *le-nen} *mase* [calabma zɣar]   qaraf-u-*a*.
         believed-1SG {that.∅ / that-3SG.F / *that-3PL} table.F [some   children]PL broke-3PL-it.F

         'I believed that *the table*, some children broke *it*.'   (*C-CLLDed Obj-Subj-V*)

c. saddɪx-tu {le / le-na / *le-nen} MASE [calabma zɣar] qaraf-o (qursi lā).
   believed-1SG {that.∅ / that-3SG.F / *that-3PL} table.F [some children]PL broke-3PL (chair no)

   'I believed that, THE TABLE, some children broke (not the chair).' (*C-Focused Obj-Subj-V*)

C agreement with the closest goal is also seen in (5); the object is fronted to a low position in the clause between T and Asp (Akkuş To appear). C cannot agree with the low-focus object since the subject in T intervenes.

(5) saddɪx-tu {le / *le-na / le-nen} [calabma zɣar] MASE qaraf-o (qursi lā).
    believed-1SG {that.∅ / *that-3SG.F / that-3SG.PL} [some children]PL table.F broke-3PL (chair no)

    'I believed that some children broke THE TABLE (not the chair).' (*C-Subj-Focused Obj-V*)

C can also exhibit FCA with a fronted, coordinated object, be it CLLDed, (6b), or focused-fronted, (6c), while T has to agree with the subject.

(6) a. saddɪx-tu {le / le-nu} qaraf zɣer-ma [mase u bābe].
       believed-1SG {that.∅ / that-3SG.M} broke.3SG.M child.M-a [table.F and door.M]

       'I believed that some child broke the table and the door.'

    b. saddɪx-tu {le / le-na / le-nen} [*mase u bābe*] qaraf-*en* zɣer-ma.
       believed-1SG {that.∅ / that-3SG.F / that-3PL} [table.F and door.M]PL broke.3SG.M-them child.M-a

       'I believed that *the table and the door*, some child broke *them*.'

    c. saddɪx-tu {le / le-na / le-nen} [MASE U BĀBE] qaraf zɣer-ma.
       believed-1SG {that.∅ / that-3SG.F / that-3PL} [table.F and door.M]PL broke.3SG.M child.M-a

       'I believed that THE TABLE AND THE DOOR, some child broke (not the chair and the TV).'

iii. C-less finite T with ϕ-features. SA has an ECM-like construction which hosts a finite T, but lacks higher projections, C and Neg (Neg is above T in Arabic, including SA; see Soltan 2007; Benmamoun et al. 2013). This indicates that T's ϕ- or tense features are not inherited from C, but are intrinsic to T. As shown for a modal and auxiliary in (7), the embedded structure manifests subject agreement.

(7) leyla tɪ-hapes kemal {i-tix / ku} i-xsel potad.
    Leyla.F 3F-wait.IPFV Kemal.M 3M-be.able.to / aux.PRS.3M 3M-wash.IPFV clothes

    'Leyla expects Kemal {to be able to wash / to be washing} the clothes.'

After establishing that the embedded subject does not raise to the matrix object position, we use five diagnostics to demonstrate that the ECM clause has T but lacks C and Neg, differing from embedded clauses with their full CPs. These include (i) passivization, which is possible only in the absence of an embedded C. In (8), the ECM-subject raises to become the grammatical subject. (ii) the lack of an embedded CLLD/high focus position, (9), (iii) the lack of sentential negation in the ECM clause.

(8) kemal i-n-hapes (*le) ku i-fqez sahane.
    kemal 3SG.M-PASS-expect that aux.PRS.3M 3SG.M-run now

    'Kemal is expected to be running.'

(9) *ab-i i-hapes POTAD leyla ki tɪ-xsel.
    father-my 3SG.M-expect clothes Leyla aux.PRS.3F 3SG.F-wash.IPFV

    'My father expects Leyla to be washing CLOTHES, (not the curtains).

Conclusion. The paper provides evidence from three configurations that C and T are independent probes. C and T may agree with (different parts of) the same target and realize distinct sets of ϕ-features. They may agree with different goals. Moreover, SA has embedded constructions with finite T but no higher projections, and crucially finite T without CP may still agree.

We also discuss two implications. First, we show that FCA and complementizer agreement, at least in SA, involves syntactic ϕ-feature-checking, and cannot be about linear order, processing, a solely PF agreement (e.g. Miyagawa 2010; Ackema & Neeleman 2004). Second, we discuss closest goal agreement (C in SA) vs Case-discriminating agreement (T in SA) (Preminger 2014; Deal 2017; Akkuş 2020). We show that C and T can vary in their agreement type across languages, bringing in new data from Jordanian, Hijazi, and Najdi Arabic varieties, as well as West Flemish (Haegeman & Van Koppen, 2012).

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