Rethinking Complementizer Agreement: Agree with a Case-Checked Goal

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Agree(X, Subj) accounts for all agreement in West Germanic: complementizer agreement (CA) results from an Agree relation between uninterpretable $\phi$-features of Fin$^0$ (Rizzi 1997) and $\phi$-features of the subject; subject-verb agreement (SA) spells out uninterpretable $\phi$-features of T$^0$ on V$^0$ raised to T$^0$, even in OV clauses (Haegeman 2000). Although DPs need Case to participate in Agree relations (Chomsky 2000), deletion-marked Case remains syntactically accessible until the next strong phase (Pesetsky and Torrego 2001), allowing CA and SA to cooccur. In Frisian, ‘that’ cannot agree in embedded VO clauses because it is in Force; the verb is in Fin$^0$, bearing CA (contra Zwart 1997).

Keywords: (complementizer) Agree(ment), CP-recursion, Frisian, Case (deletion), antisymmetry, Dutch

1 Overview

As is well known, C$^0$ inflects for $\phi$-features of the local subject in a number of West Germanic languages. Subject agreement (SA) is also present on the verb. I illustrate with West Flemish in (1) (examples from Haegeman 1992).

(1) a. Kpeinzen dan-k (ik) morgen goan.
   I-think that-I (I) tomorrow go
   ‘I think that I’ll go tomorrow.’

b. Kpeinzen da-j (gie) morgen goat.
   I-think that-you (you) tomorrow go
   ‘I think that you’ll go tomorrow.’

c. Kvinden dan die boeken te diere zyn.
   I-find that-PL the books too expensive are
   ‘I find those books too expensive.’

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While Shlonsky (1994) argues for the presence of an AgrP associated with CP, most other analyses attribute agreement on $C^0$ to raising or copying of clausal subject-verb agreement features. The line of analysis originates with Hoekstra and Marácz (1989), who propose that complementizer agreement (CA) results from raising of $I^0$ to $C^0$. Inflectional features that are then located on the complementizer percolate down to the verb, allowing it too to agree. Zwart (1993, 1997) modifies the proposal only slightly, arguing that CA occurs because Agr$_S^0$ raises to $C^0$ in the relevant languages.

In the context of the specifier-head approach to agreement proposed in Chomsky 1986 and related work, agreement of complementizers with subjects is anomalous; an approach based on sharing of $I^0$’s features has the virtue of avoiding this difficulty. The trend has thus far not been altered, however, by a theoretical shift from specifier-head relations to closest c-command in approaching agreement phenomena (Chomsky 2000, 2001a,b), despite a clear c-command relation between $C^0$ and the subject. Zwart (2001) again advances the Agr$_S^0$-to-$C^0$ movement proposal; Watanabe (2000) claims that the subject’s interpretable $\phi$-features are copied onto $T^0$, and thence to $C^0$. Craenenbroeck and Koppen (2002) propose that Merge($C^0$, TP) yields agreement by sharing $T^0$’s features with $C^0$. Only Ackema and Neeleman (2001) propose direct agreement between $C^0$ and the subject. But their account, based on phonological adjacency, cannot be generalized, since adjacency is demonstrably irrelevant to many other agreement phenomena.

I depart from these past approaches and treat CA as a canonical case of agreement under c-command. I argue that CA is simply explained in terms of an Agree relation between an uninterpretable $\phi$-feature set of $C^0$ and the local subject (Chomsky 2000, 2001a,b). And contrary to appearances, the verb in the final position of OV clauses is in $T^0$ (Haegeman 2000); both agreeing heads thus delete uninterpretable features under c-command of the subject, contra prior analyses.

A maximally simple theory of agreement is maintained.

CA with subjects thus reduces to the broader phenomenon of multiple agreement discussed in Carstens 2001—agreement of more than one item with a single nominal. Multiple agreement is not uncommon; other instances include concord within DP (see (2a) for an example from Italian, and (2b) for my analysis) and SA repeated on all verbal heads in the compound tenses of Bantu and Arabic (see Swahili (3a), Arabic (3b), and (4)).

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1 Shlonsky approaches this problem differently—by analyzing the $\phi$-features on $C^0$ as specifier-head agreement with a subject-doubling clitic. I take the clitics to be themselves a part of the spell-out of $C^0$’s uninterpretable $\phi$-features. See footnote 24 on a different kind of clitic-$C^0$ relationship, in Frisian.

2 I refer here to a GLOW abstract, published while I was writing this article. Since the article’s acceptance for publication in LI, I have received a copy of Craenenbroeck and Koppen’s GLOW handout, where a different analysis is presented, which, like my own, takes CA to be valued by the subject.

3 Not to be confused with multiple Agree between a probe and several goals, on which see Hiraiwa 2001.
(2) a. la mia casa
the(my house)
‘my house’
b. [DP la [n_p mia [NP casa]]]4
     Agree #1
     Agree #2

(3) a. Juma a-li-kuwa a-ngali a-ki-fanya kazi.
     Juma SA-PST-be SA-still SA-PROG-do work5
     ‘Juma was still working.’
b. al-bint-aani kaan-ataa ta-ktub-aani darsa-humaa
     the-girls(F)-3D be + PST-3FD 3F-write-D lesson-FD
     ‘The two girls were writing their lesson.’

(4) [TP Subj T0+be [AspP t_Subj Asp0 [AspP t_Subj Asp0+V [vP t_Subj t_v [VP t_v DP]]]]]6 = (3a)
     Agree #1
     Agree #2
     Agree #3

Cases like (3a–b) show that an instance of agreement in the full set of a DP’s \( \phi \)-features does not preclude agreement and raising relations between that same DP and higher heads, contra Chomsky (2000, 2001b). And they show that there is considerable variation across languages with regard to which—and how many—heads inflect for agreement.

CA with subjects is unsurprising, in light of these facts. It suggests, however, that we should modify Chomsky’s proposal that a category with deletion-marked Case is syntactically inactive. I will argue that a deletion-marked Case feature remains active until the next strong phase.7

The relationship between \( C^0 \) and \( T^0 \) appears to be a close one (see Chomsky 2001a:15–16) and plausibly involves some feature sharing. But the approaches to CA based on this crucially

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4 I assume that Romance nouns undergo a movement not depicted here, raising out of NP to an intermediate position, as argued by Cinque (1994) and Valois (1991), among others.

5 Throughout, abbreviations in glosses are SA = subject agreement, AGR = agreement, PST = past tense, HAB = habitual, PROG = progressive, MOD = modal, ASP = aspect, DEM = demonstrative, FV = final vowel of Bantu verbs, CA = complementizer agreement, PL = plural, SG = singular, F = feminine gender, D = dual. Numbers in glosses of Bantu examples designate noun class. Roman numeral II in Bantu glosses is second person (as opposed to noun class 2).

6 (4) assumes that the subject raises from Spec to Spec in a compound tense (Carstens and Kinyalolo 1989). A strong correlation between agreement and raising suggests that uninterpretable \( \phi \)-features have EPP features in Kilega and other Bantu languages; see Carstens 2002 for discussion.

7 Pesetsky and Torrego (2001) argue on independent grounds that deletion-marked Case is accessible until the next strong phase. They propose that nominative Case is an uninterpretable \( T^0 \)-feature, as is the feature of \( C^0 \) that triggers \( T^0 \)-to-\( C^0 \) movement in subject-aux inversion. There is no inversion in subject questions because the (nominative) \( T^0 \)-feature of the \( wh \)-subject in Spec,CP checks \( C \)’s \( T^0 \)-feature, despite having been previously deletion-marked by \( T^0 \) in Agree(\( T^0 \), Subj); the subject’s \( T^0 \)-feature can do this because it remains active until completion of the strong phase CP.
assume that C⁰ lacks uninterpretable φ-features to probe.⁸ This is a needless departure from the unified agreement theory that minimalism provides. The modification I propose, on the other hand, simplifies the theory of uninterpretable features, since these are already assumed to be accessible until Spell-Out, apart from Case.

2 Mechanics

Within the minimalist framework developed by Chomsky (2000, 2001a,b), functional categories are optionally associated with semantically empty, thus uninterpretable features of agreement and Case before leaving the lexicon. Values for these features are obtained in the syntax from a category with matching features, under closest c-command; this is the Agree relation. Chomsky proposes that the process of valuation also marks features for deletion at Spell-Out. This is obligatory, to eliminate them from the input to interpretation.

The agreement data in (1) indicate the presence of two sets of uninterpretable φ-features, one set on West Flemish T⁰ and the other on its C⁰. I assume that each of these feature sets initiates an Agree relation with the subject.

The first such relation takes place when T⁰ is merged. Under Agree, the φ-features of T⁰ act as probe, taking those of the in-situ subject as goal. T⁰’s φ-features are valued and marked for deletion (see (5a–b)); since the subject’s φ-features are interpretable, Agree leaves them intact. An EPP feature of T⁰ then raises the subject from its base position to Spec, TP, as in (5b).

(5) a. \[TP T_\phi, EPP \]

\[vP Subj \ldots \]

Agree(T, Subj) = “subject agreement”

b. \[TP Subj T_\phi, EPP \]

\[vP tSubj \ldots \]

T’s uninterpretable features marked for deletion: Subj raises to satisfy T’s EPP feature

Word order facts give rise to a question in connection with SA. Assuming with Zwart (1994, 1997, 2001) that the verb in final position of embedded clauses is in situ (see (1)), how does it come to bear T⁰’s inflection, this seeming otherwise to require a highly local relation between T⁰ and V⁰? Under the V⁰-in-situ analysis, inflection of verbs in Dutch embedded clauses can be separated from T⁰ by internal arguments and adverbs, as Zwart (1994) and Watanabe (2000) note; even the negative heads nie and en can intervene between T⁰ and an inflected verb under this analysis (see Haegeman 2000), in marked contrast with English. Watanabe (2000) accordingly proposes that the verb has its own φ-features, making its inflection independent of the φ-features of T⁰. This overcomes the problem of V⁰’s separation from T⁰, but another problem arises: as Watanabe points out, no syntactic configuration associated with agreement ever exists between

⁸ On uninterpretability, probes, and other technicalities of the theory, see section 2.

⁹ Watanabe assumes that adjacency is required between T⁰ and inflected V⁰; see Halle and Marantz 1993 and Ochi 1999. We will see in (9) that an intervening adjunct blocks Agree(C, Subj) in Hellendoorn—an obstacle to extending to Dutch Ochi’s late insertion approach to, for instance, English John already left. I provisionally assume therefore that a head-head relation between T⁰ and V⁰ underlies verbal inflection and rules out *[T . . . Neg . . . Vfin]. See footnote 13 and the voluminous literature on English do-support in negative sentences, including Pollock 1989, Chomsky 1995.
the subject and the verb—neither c-command of the former by the latter (Chomsky 2000, 2001a,b) nor a specifier-head relation (Chomsky 1986, Koopman 1992, 2000), to name two possibilities. Watanabe proposes that checking between the uninterpretable φ-features of V⁰ and T⁰ eliminates both sets. But this postpones deletion marking and valuation of V⁰’s features until after its containing phase, vP, has already been sent to Spell-Out—an illicit move in Chomsky’s framework.¹⁰

Kayne (1994) and Haegeman (2000) argue that finite verbs raise to T⁰ in Dutch, even in OV clauses. According to Haegeman, a remnant category XP, containing the VP, then moves to Spec,TP, placing objects and verbal modifiers in preverbal position. Thus, for Haegeman, a partial representation of (1c) is (6).

(6) . . . that the books [TP[XP[t are too expensive]]] are + T tVP].

Adopting this view solves the problem of SA on Dutch verbs in OV clauses.¹¹ I propose that because the verb raises and adjoins to T⁰, it inflects for the φ-feature values established for T⁰ in its Agree relation with the subject.

Upon merger of inflected C⁰, its uninterpretable φ-features initiate a subsequent Agree relation with the subject and are valued and marked for deletion, as (7) illustrates.

(7) [CP Cφ [TP[Subj Tφ, EPP [vP tSubj . . . ]]] Agree(C, Subj) = “complementizer agreement”: C’s uninterpretable features marked for deletion

The phenomenon of CA with a subject to its right provides support for the distinction this theory draws between the c-command-based Agree relation that underlies agreement and the movement of agreed-with DP to Spec of the agreeing category, which may or may not accompany it.

3 Intervention Effects

Facts of Hellendoorn discussed by Ackema and Neeleman (2001) provide strong support for the Agree(C⁰, Subj) approach to CA and against an I⁰-to-C⁰ movement account. In Hellendoorn, first person plural SA is realized as -t on verbs of SVO and SOV clauses (see (8c)). Embedded clauses with first person plural subjects display CA, and its form differs from that of SA (compare the endings on datte ‘that-PL’ and loopt ‘walk’ in (8a)). Inverted verbs exhibit not -t but the -e form of first person plural agreement otherwise found on complementizers (see (8b)). ((8) is taken from Ackema and Neeleman 2001.)

(8) a. datte wiej noar ’t park loopt
   that-PL we to the park walk
   ‘that we are walking to the park’

¹⁰ Zwart’s proposal that the abstract features of V⁰ raise to Agrs⁰ might avoid the necessity of deleting those features within the v*P strong phase. But this does not explain how the φ-feature values that surface morphologically on V⁰ could be determined before Spell-Out, when phonological V⁰ remains in VP.

¹¹ The verb’s inflection for person agreement is Kayne’s (1994) argument for V⁰-to-I⁰ raising and leftward complement movement in West Germanic OV constructions, as Haegeman (2000) points out.
b. Volgens miej lope wiej noar ‘t park.
   according-to me walk-pl we to the park
   ‘According to me we are walking to the park.’

c. Wiej loopt noar ‘t park.
   we walk-pl to the park
   ‘We are walking to the park.’

I assume that the verb in (8b) is in C⁰ (Den Besten 1977, Zwart 1993, 1997); its inflection is the spell-out of C⁰’s uninterpretable φ-features.¹²

Now consider what happens if a fronted adjunct intervenes between C⁰ and the subject in Hellendoorn. Ackema and Neeleman (2001) demonstrate that a complementizer cannot agree in this case.

(9) dat/*datte op den wärmsten dag van ‘t joar wiej tegen oonze wil ewa¨rkt hebt
    that/that-pl on the warmest day of the year we against our will worked have
    ‘that on the warmest day of the year we have worked against our will’

Ackema and Neeleman also show that such adjunct fronting is possible within a verb-second (V2) construction, yielding the order XP-V-AdvP-Subj. As in (8b), I assume that V2 order results from V⁰-to-I⁰-to-C⁰ movement. But here the raised verb can only bear the -t ending of SA, not the -e associated with CA.

(10) Volgens miej loopt/*lope op den wärmsten dag van ‘t joar ook wiej noar ‘t park.
    according-to me walk-pl/walk-pl on the warmest day of the year also we to the park
    ‘According to me we are also walking to the park on the warmest day of the year.’

Under analyses attributing CA to I⁰-to-C⁰ movement/feature sharing, it is unexpected that CA should be blocked in a context where I⁰-to-C⁰ movement is possible, as in (9) versus (10). A straightforward account is available under the closest c-command analysis, however, since on standard assumptions the adverbial in (10) is adjoined to TP, where it disrupts closest c-command of the subject by C⁰ (see (11a)). Head movement of T⁰ to C⁰ is unaffected by the AdvP’s presence (11b), since XPs are generally irrelevant in head-head relations (see Rizzi 1990 and related work).¹³

(11) a. [CP C [TP AdvP [TP Subj T . . . ]]]
    b. [CP T+C [TP AdvP [TP Subj tT . . . ]]]

¹² The question arises why a verb raised to C⁰ does not take along the inflection characteristic of T⁰, exhibiting it instead of or in addition to that of C⁰. I address this in section 6.1.

¹³ I am assuming (contra Pesetsky and Torrego 2001) that the features motivating head movement are different from those involved in agreement with and movement of XPs (I draw on Rizzi 1990 for this conclusion). Head movement may in fact be purely phonological (Boeckx 2001a).
For the adjunct to “count” as a possible goal in this relation, it must have a relevant feature; I suggest this is a Case feature.

An important question arises: if a TP-adjoined nonsubject has first person plural features, can C⁰ agree with it? Under the closest c-command account, this is a reasonable expectation, all else being equal. But (12) shows that it is not borne out: subjects are the only licit valuers of CA.

(12) Ik dènke dat*/datte oons zölfs Jan nie mag.
   I think that/that-1PL us even Jan not likes
   ‘I don’t think even Jan likes us (lit. I think that us, even Jan doesn’t like).’

Since adjoined elements can effectively intervene in the valuing of CA ((10) and (11)), they cannot be discounted as possible goals on the basis of their Â-status. This leaves only their different Cases as a basis for distinguishing subjects from objects as licit valuers of CA. The findings of this section can therefore be summarized as in (13).

(13) C⁰ can agree with α only if
    a. C⁰ closest c-commands α, and
    b. α is nominative.

While (13a) follows from the theory adopted here, (13b) is a stipulation. In the following section, I propose an account of (12) treating the fronted object as a “defective intervener” in Chomsky’s (2000, 2001a,b) sense; that is, I propose that while it blocks C⁰’s access to the subject, it cannot value C⁰’s φ-features because its Case has been deleted in the v*P strong phase. In contrast, a subject’s nominative Case is not deleted until the CP strong phase, making subjects licit goals in Agree relations with C⁰. (13b) thus reduces to Chomsky’s “active” Case requirement for goals.

4 Implications for Case Deletion

The facts of CA argue for some modification to Chomsky’s (2000, 2001a,b) treatment of Case deletion. Chomsky proposes that in the Agree relation, the goal DP’s Case feature is marked for deletion. Thereafter, the DP in question is unable to serve as goal to further applications of Agree, since it lacks an uninterpretable feature to make it “active.” This view is not compatible with the account of CA and SA agreement presented in section 2, since it predicts that the Agree relation between T⁰ and the subject rules out the possibility of a subsequent one between the subject and C⁰, by deleting the subject’s Case.

But Chomsky also argues that uninterpretable features marked for deletion survive until the next strong phase, that is, until the next CP or transitive v*P. If we extend this proposal to Case

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14 My thanks to an anonymous reviewer for raising this question, and to Peter Ackema and Jan Nijen Twilhaar for their considerable help in establishing the answer.

15 See Carstens 2001 for arguments that the probe must have a Case-“assigning” feature to delete the Case of a goal, and against Chomsky’s view that Case deletion happens iff the probe has a full set of φ-features. The question is largely irrelevant here, however.
features, the problem is eliminated; there is no reason why C0 should not take the subject DP as goal.16

At first glance, this proposal might seem to permit some unacceptable cases of raising. It is true that, given the structures in (14a–b), John should be able to serve as goal for both the embedded T2 and the matrix T1, since the CP node of the matrix clause is the only strong phase present. Similarly, PRO might be expected to be able to undergo raising in a case like (14c) ((14b–c) adapted from Chomsky 2000:128, (47)).

(14) a. *[TP1 John T1 is believed [TP t T2 has arrived t]]
   b. *[TP1 John T1 to seem [TP t T2 is [vP intelligent t]]] (would be surprising)
   c. *(we hoped) [PRO to be decided [TP t to be killed t at dawn]]

But these cases are ruled out independently, under Chomsky’s assumptions. Chomsky (2001b:8) proposes that finite and control T0 are selected only by C0, not by V0; V0 selects TPs only of the kind headed by nonfinite Tdef (= defective) of raising and exceptional Case-marking clauses. This makes the structures in (14) impossible: the embedded clauses can only be CPs, as shown in (15).17

(15) a. [CP C1 [TP T1 is believed [CP C2 [TP John T2 has arrived t]]]]
   b. [CP C1 [TP T1 to seem [CP C2 [TP John T2 is intelligent t]]]]
   c. [CP C1 [TP T1 to be decided [CP C2 [TP PRO T2 to be killed t at dawn]]]

An Agree relation between T1 and John in (15a–b), or between T1 and PRO in (15c), is ruled out by Chomsky’s Phase Impenetrability Condition (PIC), reproduced in (16). Under the PIC, the probe T1 has access to C2 and its Spec, but nothing lower. The problem therefore does not arise.18

(16) In phase α with head H, the domain of H is not accessible to operations outside α, only H and its edge are accessible to such relations. (Chomsky 2000:108)

Consider now the fronted object in (12)(repeated here).

(12) Ik dèènke dat/*datte oons zööfs Jan nie mag.
    I think that/*that-1PL us even Jan not likes
    ‘I don’t think even Jan likes us (lit. I think that us, even Jan doesn’t like).’

16 Assuming deleted Case is accessible until the next strong phase has the additional virtue of eliminating a technical paradox noted by Boeckx (2001b), namely, that Chomsky proposes movement of a category to be possible only following its participation in the Agree relation, yet at the same time asserts that Agree, by deleting Case, freezes an item in place.

17 Chomsky (2001a) suggests that there is no selection per se, its apparent effects deriving from semantic considerations. This idea can presumably be extended to the restriction of tensed and control clauses to CPs (as opposed to bare TPs), particularly given Chomsky’s view that C0 is a kind of partner category to T0, with closely related content.

18 An anonymous reviewer asks whether, for example, John in (15a) could not raise to Spec,CP2 and thence to TP1. Pesetsky and Torrego (2001) discuss this question in relation to a proposal that embedded subjects raise to Spec,CP whenever that is absent. They rule out raising to the higher Spec,TP on the assumption that the embedded subject’s Case necessarily deletes at the CP2 phase. This accords with my account of why C0 cannot agree with a fronted object; see discussion of (12) in section 3 and below.
This object originates in VP, where its Case is deletion-marked under closest c-command by v* (see (17a)). The next strong phase for the object is v*P, so I assume that its deletion-marked Case feature is deleted in v*P. Subsequent A¯-movement can take the object to the TP-adjoined position, since a different set of features is involved; A¯-movement of Case-deleted items is routine. But to value any probe’s uninterpretable φ-features, a category must have active Case. CA with the object is therefore impossible (17b).19 And under Chomsky’s Defective Intervention Constraint (Chomsky 2000:123), Agree is blocked even by an intervening category rendered inactive through prior deletion of its Case. Thus, in (12) C0 cannot take the subject as goal across the adjoined object. Therefore, CA with the subject is also ruled out (17c).20 The complementizer must be inserted without uninterpretable φ-features.

(17) a. \[[vP v* [VP V Obj]\text{Case}]\]

b. \[[CP C [TP Obj]\text{Case} [TP Subj . . .]]\]

c. \[[CP C [TP Obj]\text{Case} [TP Subj . . .]]\]

A technical issue arises in connection with this account. Chomsky proposes that deletion-marked uninterpretable features are deleted from an item after it is sent to Spell-Out, which happens cyclically, at each strong phase level. But the object in (12)/(17) does not go to Spell-Out with the domain of v*P; it raises out of it (via Spec,v*P, under (16)) and is spelled out at the CP strong phase. Since the object is nonetheless inactive for CA, I conclude that uninterpretable features are syntactically inaccessible beyond the strong phase in which they are deletion-marked, whether or not their bearer goes to Spell-Out at that point (and see footnote 18).

To sum up, the facts argue that a DP can serve as goal for Agree, even after its Case is deletion-marked. But outside the strong phase in which deletion marking takes place, this ceases to be true. Hence, subjects can value CA; objects cannot.

5 Embedded VO in Frisian

Zwart (1997, 2001) describes a Frisian restriction that he claims confirms his view of CA as an effect of feature raising from I0 to C0.21 A complementizer may bear agreement only in OV clauses like (18a). Frisian permits embedded VO, as shown in (18b); in this case, CA is disallowed. Zwart presents these facts as crucial evidence for his approach, so I will discuss them in detail.

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19 Strike-through in (17b–c) indicates prior deletion.

20 I have been unable to construct any acceptable Hellendoorn example in which the subject is first person plural and an object separates it from C0 whether C0 agrees or not. Eric Haeberli (personal communication) informs me that weak pronouns must be C0-adjacent in Germanic, though stress on the pronoun can overcome this requirement. My understanding is that agreement of C0 with a subject across any intervening material is impossible (Ackema and Neeleman 2001; Peter Ackema, personal communication).

21 Here and subsequently, I substitute I0 for AgrS0 in discussing Zwart’s account, for expository convenience.
(18) a. . . . datsto/*dat do soks net leauwe moast
   that-2SG/that you such not believe must-2SG
   ‘. . . that you should not believe such things’

b. . . . dat do/*datsto moast soks net leauwe
   that you/that-2SG must-2SG such not believe
   ‘. . . that you should not believe such things’

Zwart analyzes the verb as in situ in OV order; surface head-finality derives through leftward
movement of objects and other underlyingly postverbal material, as sketched in (19) for the
embedded clause of West Flemish (1c) (repeated here).

(19) dan die boeken te diere [VP zyn t_diere]
VO order results when the verb raises to I^0. According to Zwart, I^0’s features raise to C^0 when
I^0 is not lexicalized by a raised verb. Thus, in (18a) but not (18b), I^0’s features raise, as shown
in (20a) versus (20b) (I ignore here the relative order of the unraised modal and the main verb).
The result is agreement of C^0 with the subject in (18a) only, since CA is based on I^0’s φ-features.

(20) a. [CP I + dat [IP pro t_1 soks net [VP leauwe moast t_soks]]]
   that (you) such not believe must

b. [CP dat [IP do moast + I soks net [VP leauwe t_moast t_soks]]]
   that you must such not believe

Problems for Zwart’s approach argue that it is incorrect. First is evidence that V^0 does in fact
raise to I^0 in SOV clauses, rendering (20) untenable. The presence of agreement on the verb in
OV clauses is one indicator (see Kayne 1994 and section 2). And Haegeman (2000) argues that
numerous additional factors, including object shift, the interpretation of indefinites, and the posi-
tion of negation, are inconsistent with the V^0-in-situ approach. Under Haegeman’s analysis, the
representation of (18a) is not (20a), but (21).

(21) [CP dat [TP pro [XP soks net t_moast leauwe t_soks] moast + T [VP t_XP]]]
   that (you) such not believe must

In addition, there is strong empirical evidence that embedded SVO is actually a subcase of embed-
ded topicalization with V2, that is, with V^0 surfacing in C^0. In (22a), word order is [dat OVS];
in (22b), it is [dat Adv VSO]. ((22a) is from Iatridou and Kroch 1992, citing Germen de Haan,
personal communication; (22b) is from Germen de Haan, personal communication.)

(22) a. Pyt sei dat my hie er sjoen.
   Pyt said that me had he seen
   ‘Pyt said that he had seen me.’
b. Pyt sei dat juster hie er my sjoen.
   Pyt said that yesterday had he me seen
   ‘Pyt said that he had seen me yesterday.’

That these orders are licit suggests a return to an earlier analysis of embedded VO, rejected by Zwart—namely, the CP-recursion account proposed by de Haan and Weerman (1986) (see also Iatridou and Kroch 1992, de Haan 2001). De Haan and Weerman argue that complement clauses with embedded VO are structured as in (23a), where $\Delta$ represents an empty head of $S'$ to which the embedded verb can move. Embedded OV clauses simply lack the extra layer of structure; they are represented as in (23b).

\begin{align*}
(23)\quad a. & \quad [S' \text{ dat } [S' \Delta S]] \\
& \quad \text{Structure of embedded VO clauses} \\
& \quad [S' \text{ dat S}] \\
& \quad \text{Structure of embedded OV clauses}
\end{align*}

I assume a version of (23) that integrates Rizzi’s (1997) proposal that CP includes a number of distinct projections; I illustrate in (24). ForceP is the external interface for the clause, accessible to selection; topicalized material is found in Spec,TopP (an iterable projection available below Foc(us)P as well as above it); wh-phrases occupy Spec,FocP; finiteness and clause-internal properties are the concern of Fin(ite)P.

\begin{align*}
(24) & \quad \text{ForceP} \\
& \quad \text{Force0} \quad \text{TopP} \\
& \quad \text{Top0} \quad \text{FocP} \\
& \quad \text{Foc0} \quad \text{FinP} \\
& \quad \text{Fin0} \quad \text{TP}
\end{align*}

Rizzi (1997:284) also proposes that CA is a property of Fin0; it follows that the complementizer in embedded VO does not agree if it is merged directly to a higher head, which I take to be Force0.

\[22\] CP-recursion/embedded V2 have been argued to be selected: de Haan and Weerman indicate that embedded V2 is compatible with a restricted set of matrix predicates; Vikner (1991) claims that embedded V2 in Danish and other Mainland Scandinavian languages involves CP-recursion, and shows that it is restricted to complements to bridge verbs; see Iatridou and Kroch 1992 for discussion and an account. But de Haan (2001) shows that embedded V2 clauses can be noun complement clauses, result clauses, and causatives, and argues that they are not subordinate clauses at all but root clauses coordinated with the apparent matrix. I think de Haan’s empirical observations are compatible with the analysis in (25); in any case, they do not bear on the issue of CA, so for reasons of space I will not discuss them further.
Suppose, then, that the subject is topicalized in embedded SVO. The verb follows, raising to empty Fin⁰ in an instance of V₂;²³ and for this reason, in (18b), the CA characteristic of Fin⁰ can only be spelled out on the verb moast.²⁴

(25) ... ForceP (= (18b))

De Haan (personal communication; 1997) argues that CA and SA are only superficially alike. He points out that the -ste ending of complementizers (datste) and inverted verbs, unlike the -ste ending of verbs in OV and VO clauses (and unlike the variant -st) cannot cooccur with the overt second person clitic do as subject. De Haan concludes that the -ste ending of complementizers and inverted verbs incorporates the weak second person singular clitic de, to which progressive assimilation then applies (dats + de = datste). I assume instead that C⁰ and T⁰ have identical endings, including -st and -ste. In an instance of Avoid Pronoun, only a null version of the second person singular pronoun is possible under local c-command by -ste. The situation is reminiscent of Old French, where SA apparently licenses pro only from C⁰ (Adams 1987); the cases differ in that Frisian C⁰ has agreement of its own, while Old French C⁰ has agreement just when T⁰ raises to it. -ste is “richer” than -st, under my analysis, since -st does not license a null pronoun (i.e., it cooccurs with do).
De Haan and Weerman (1986) provide several kinds of support for the CP-recursion approach, all problematic for Zwart’s account. Citing the contrast in Frisian between (26) and (27), they argue that embedded VO clauses are islands for extraction and propose that the extra S’ node blocks movement.25

(26) a. Hy sei [S’ dat dizze oersetting net maklik lest].
   he said that this translation not easy reads
   ‘He said this translation doesn’t read easily.’
  b. Hokker oersetting sei hy [S’ dat ______ net maklik lest]?
   which translation said he that not easy reads
   ‘Which translation did he say doesn’t read easily?’

(27) a. Hy sei [S’ dat [S dizze oersetting lest net maklik]].
   he said that this translation reads not easy
   ‘He said this translation doesn’t read easily.’
  b. *Hokker oersetting sei hy [S’ dat [S ______ lest net maklik]]?
   which translation said he that reads not easy
   ‘Which translation did he say doesn’t read easily?’

Since it is the (hypothetically) topicalized subject itself that fails to wh-move in (27b), the implications are not entirely clear. But additional examples (from Germen de Haan, personal communication) show that extraction from the embedded clause is barred systematically.

(28) a. *Wer sei Pyt [dat er hie my sjoen ______]?
   where said Pyt that he had me seen
   ‘Where did Pyt say that he had seen me?’
  b. *Wa sei Pyt [dat my hie ______ sjoen]?
   who said Pyt that me had seen
   ‘Who did Pyt say had seen me?’
  c. *Wa sei Pyt [dat juster hie ______ my sjoen]?
   who said Pyt that yesterday had me seen
   ‘Who did Pyt say had seen me yesterday?’
  d. *Wa sei Pyt [dat juster hie er ______ sjoen]?
   Obj extracted: *[Adj Aux S t V]

Updating de Haan and Weerman’s account slightly, we can attribute the facts in (28) to the closest

25 Hy is the full third person singular pronoun in Frisian; er in (22) is the clitic version. See de Haan and Weerman 1986:85 on the distribution of hy and er.

Zwart (1997:233) accounts for the facts in (26)–(27) with the proposal that Agrs^0-to-C^0 movement, whether overt or covert, is necessary to make AgrsP transparent for extraction; in embedded VO clauses, where V^0 raises to Agrs^0, Agrs^0 does not raise to C^0, so the clause is opaque. Recall my assumption, following Haegeman, that V^0 raises even in OV clauses, under which this line of explanation is untenable. A drawback internal to Zwart’s account is that it is not clear why extraction is possible from SVO clauses in, for example, French, where tensed V^0 always raises to a comparable position (Pollock 1989), presumably eliminating any motivation for Agrs^0-to-C^0 movement in French. The conditions for covert l^0-to-C^0 movement must be stipulated, on a language-particular basis, or else the landing sites for V^0-raising in Dutch and French must be stipulated to differ crucially.
c-command requirement on Agree and movement (see also Rizzi 1990): the topicalized constituent intervenes between the Q-feature of the matrix C^0 and its wh-phrase goal. I suggest that the immobility of the topicalized subject in (27) is due to incompatibility of topic and wh (focus) features on a single item.

As Iatridou and Kroch (1992) point out, the island effects provide evidence against an otherwise possible A-movement account of embedded XVS order, taking the landing site for the initial constituent X to be Spec,TP and that of the verb to be T^0 (and see their paper for additional diagnostics differentiating among cases of V2).

De Haan and Weerman also point out two ways in which embedded SVO clauses pattern with matrix clauses. First, they are compatible with internal left-dislocation, while OV embedded clauses are not. In keeping with Rizzi’s (1997) proposals, I assume the left-dislocated phrases in (29) are in TopP. The asymmetry then follows from the difference in the position of the complementizer in the two clause types, assuming with Rizzi that TopPs are superior to FinP. In the OV clause, the complementizer is in Fin^0, so no topic can follow it (29). In the VO clause, the complementizer is in Force^0. Since TopPs can iterate beneath Force^0, a left-dislocated phrase is allowed (30).

   he said that Douwe DEM not come would
   ‘He said that Douwe, he would not come.’
   
b. *[FinP dat [TopP Douwe [TP dy [XP net komme] woe tXP]]]

(30) a. Pyt sei dat Douwe dy woe net komme.
   Pyt said that Douwe DEM would not come
   ‘Pyt said that Douwe, he would not come.’
   
b. [ForceP dat [TopP Douwe [TopP dy [FinP woe [TP tSubj [XP net komme] twoe tXP]]]]]

Finally, de Haan and Weerman point out that the clitic subject er is not possible in embedded VO clauses (though it is fine in embedded OV clauses). Assuming (25), this prohibition follows from the general inability of clitics to topicalize.

To sum up, embedded V2 cooccurs with a variety of initial constituents within the embedded clause, not just with initial subjects. Embedded SVO clauses pattern with other cases of embedded V2 in relation to a variety of syntactic phenomena. Analyzing the construction as embedded topicalization, as in de Haan and Weerman 1986 and Iatridou and Kroch 1992, provides a simple and unitary account and yields natural explanations of all connected phenomena. Thus, the analysis consistent with my proposal for CA has strong independent motivation.

6 Surface Position and Inflectional Paradigms

6.1 Why Complementizer Agreement and Subject Agreement Do Not Cooccur on Fronted Verbs

Assuming that both Fin^0 and T^0 have uninterpretable φ-features, the question arises why verbs in inversion constructions never exhibit two morphemes agreeing with the subject, one spelling
out the $\phi$-features of $T^0$, and one spelling out those of $Fin^0$. When the paradigms for CA differ from those of SA, as in Hellendoorn, inverted verbs always exhibit the former; that is, they inflect like complementizers (see (8b), repeated here).

(8) a. datte wiej noar ‘t park loop
   that-PL we to the park walk
   ‘that we are walking to the park’

b. Volgens miej lope wiej noar ‘t park.
   according-to me walk-PL we to the park
   ‘According to me we are walking to the park.’

c. Wiej loopt noar ‘t park.
   we walk-PL to the park
   ‘We are walking to the park.’

Kinyalolo (1991) points out the existence of similar facts in Kilega, a Bantu language of eastern Democratic Republic of Congo (Zaire). Aspectual and modal morphemes come in free and bound varieties in Kilega ((31a), (32a)). Kinyalolo argues persuasively against any underlying structural difference between the constructions in which they appear; the presence or absence of head movement and incorporation (Baker 1988) is the only significant difference (see (31b), (32b)). Yet when a free aspectual ‘‘stacks’’ above a bound one, as in (31a), each bears SA; when two bound ones are attached to a verb, only one instance of SA is possible (32a–c). Kinyalolo attributes this to a kind of morphological economy condition, which I reproduce in (33).

   10elephant 10AGR-be.still 10AGR-ASP-stampede-FV 6farm
   ‘The elephants are still stampeding over the farms.’

b. [TP T⁰ [AspP zǐ-kiliₐsₐs [AspP zǐ-á²⁶ [vp nzoguSubj twagV [VP tV DPObj]]]]]

(32) a. pro mû-ná-kúbul-ìl-ë mázi
   IIPL-MOD-pour-ASP-FV 6water
   ‘You could have poured water.’

b. [TP T⁰ [AspP mû-náₐₐₐsₐs-kúbul- [AspP (*mû-) ₁l [vp proSubj tV [VP tV DPObj]]]]
   (adapted from Kinyalolo 1991:294)

c. *mû-ná-kúbul-mû-á-ë

(33) Morphological Economy

In an adjoined structure, AGR on a lower head is inert iff its features are predictable from AGR on a higher head.

(33) also prevents the cooccurrence of $wh$-agreement and SA on the verb of a subject $wh$-question in Kilega. In $wh$-constructions, the Kilega verb appears in second position and agrees with the

26 As indicated, Kinyalolo analyzes both ‘be still’ and the progressive under it in (32) as aspectuals, Tense⁰ being silent; similarly in (32) for $na$ and $il$. If this is correct, then there are actually three logically possible instances of SA in (31) and (32) rather than the two illustrated.
wh-phrase (see (34a)); as this example shows, there is simultaneous SA with a non-overt subject. In subject questions, however, the Kilega verb shows only wh-agreement with the subject (34b). There is no agreement with the subject trace. (Example (34a) is from Kasangati K. W. Kinyalolo, personal communication; (34b) is from Kinyalolo 1991.)

(34) a. Bikí  bi-b-á-kás-íl-é    mwámí mu-mwílo?
   8what 8CA-2SA-ASP-give-ASP-FV 1chief 18-3village
   ‘What did they give the chief in the village?’

   b. Názi   ú-(*á)-ku-kít-ag-a    búbo?
   1who 1CA-(*1SA)-PROG-do-HAB-FV 14that
   ‘Who (usually) does that?’

I adopt Kinyalolo’s account of these facts and propose that his principle (33) explains the absence of two agreements on a verb in Fin⁰ in West Germanic. It explains the determining role of the verb’s surface position as well, since CA features are on a higher head than those of SA, in the word derived through T⁰ adjoining to Fin⁰. (33) is a property of the morphology, regulating spell-out of the output of syntactic processes (inert in (33) means unpronounced, on this view). Since it applies in both Kilega and West Germanic, I suggest that (33) is a morphological universal.

6.2 Two ‘‘Double Agreement’’ Dialects

Zwart (1997) calls dialects in which CA and SA paradigms differ double agreement dialects, and he describes two varieties. In one, the verb bears regular SA endings in embedded clauses and in subject-initial main clauses, and CA in subject-verb inversion constructions. This is the case in East Netherlandic, Brabantish, and West Flemish, according to Zwart. I reproduce his example from East Netherlandic in (35).

(35) a. . . . datte wy speul-t/*-e
   that  we play-1PL.SA/PL.CA
   ‘that we play’

   b. Wy speul-t/*-e.
   we  play-1PL.SA/PL.CA
   ‘We play.’

   c. Waor speul-e/-*t   wy?
   where play-1PL.CA/PL.SA we
   ‘Where do we play?’

In the second variety, the verb bears SA endings only in embedded clauses; main clause verbs exhibit the endings associated with CA. Zwart illustrates with Lower Bavarian data, citing Bayer (1984) (see also the Hellendoorn examples in (8)).

(36) a. . . . das-ma    mir noch Minga fahr-n/*ma
   that-1PL.CA we to Munich go-1PL.SA/PL.CA
   ‘that we go to Munich’
Recall Zwart’s assumption that verbs are in I⁰ if word order is SVO, as in main clauses like (35b) and (36b); they are in C⁰ in inversion constructions ((35c) and (36c)) and in VP of verb-final clauses like (36a) and (by assumption) (35a). Therefore, the two types of languages differ in that, by Zwart’s analysis, East Netherlandic lumps together in-situ verbs and verbs raised to I⁰ (35a–b) and differentiates verbs in C⁰ (35c), while Lower Bavarian lumps together verbs in I⁰ (36b) and verbs in C⁰ (36c) and differentiates in-situ verbs (36a). Zwart attributes these differences in inflection to the morphology component’s interpretation of the three distinct structures to be spelled out, based on head movement and feature raising (complex C⁰, complex I⁰, and V⁰). Zwart notes the logical but unattested possibility of inflecting differently in all three cases; Watanabe (2000) cites this in support of his claim that the features manifested in agreement on T⁰ and C⁰ have only two possible origins: the verb and the subject. (I discuss problems for Watanabe’s approach in section 2.)

Under my analysis, only two heads introduce the uninterpretable φ-features that constitute West Germanic agreement: T⁰ and Fin⁰. It follows immediately that there are at most two sets of agreement endings, depending on whether or not T⁰ and Fin⁰ have distinct inflectional paradigms.

How are we to account for the diverging patterns? Every inflected verb appears adjoined to one or the other of T⁰ and Fin⁰, under my approach to West Germanic. The fact that these matrix clause inverted verbs consistently assume the endings of Fin⁰ is further evidence that the hierarchical position of the verb at Spell-Out determines what paradigm its agreement with the subject is taken from, which follows from Kinyalolo’s economy constraint in (33). This strongly suggests that, of the East Netherlandic examples, the verb has raised to Fin⁰ only in the inversion case (35c); otherwise, I assume that it is in T⁰. In Lower Bavarian, on the other hand, the agreement facts argue that the verb raises not only in the inversion case (36c) but also in the SVO main clause (36b).

6.3 Hoekstra and Smits’s Generalization

My approach also partially explains an observation made by Hoekstra and Smits (1998), namely, that CA is found only in languages whose inverted auxiliaries have the same endings in the present tense and in the preterit. Compare (37) from South Hollandic, a language that exhibits CA, with (38) from Standard Dutch, which lacks CA.

(37) a. benn-e we are we
    b. war-e we were we
(38) a. zijn-∅ we
    are we
b. war-e we
    were we

I continue to assume that inverted auxiliaries are derived through adjoining T₀ to Fin₀. Under (33), they must exhibit only Fin₀’s agreement endings, if it has any. These have no tense-specificity since Fin₀ has no features for +/− past. But in languages without CA, inverted auxiliaries, like all other verb forms, can only exhibit the agreement features of T₀ itself. Their spelling out can accordingly be tense-specific (see Halle and Marantz 1993 for an approach to such context-sensitivity).

7 Conclusion

I have proposed that CA in West Germanic is due to φ-features of the head Fin₀, valued by the subject under closest c-command. The evidence that Zwart (1997, 2001) offers in support of the I₀-to-C₀ movement account—that is, the apparent restriction of CA to OV clauses in Frisian—relies crucially on an analysis of embedded VO that does not hold up to close scrutiny. In reality, embedded VO clauses lack SA. They involve topicalization and V2, with ‘‘complementizer’’ agreement surfacing on the verb raised to Fin₀. The complementizer itself is in a higher head of the CP system, probably Force₀.

I have also argued that SA always spells out uninterpretable φ-features of T₀ on V₀ in West Germanic, contra Watanabe (2000). Their apparent nonadjacency in OV clauses is illusory, under the analysis proposed by Haegeman (2000). Like the φ-features of Fin₀, those of T₀ are valued by the subject in the closest-c-command-based Agree relation.

I assume with Chomsky (2001b) that a DP needs a Case feature to be syntactically ‘‘active,’’ that is, accessible to Agree relations. But if the subject’s Case is marked for deletion in an Agree relation with T₀, a potential problem arises for its serving as goal in a subsequent Agree relation with C₀ in West Germanic. I have argued that this is possible because Case, like other uninterpretable features, is syntactically ‘‘active’’ after deletion marking, until the next strong phase.

To make explicit what I take to be an underlying tenet of minimalist theory, I suggest that any head with agreement paradigms has uninterpretable φ-features attached to it as it leaves the lexicon, which Agree values and the paradigms spell out. This is incompatible with the accounts of CA proposed in previous work.

References


