Complementizer Deletion in Florentine: the interaction between Merge and Move

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1. Introduction[1]

In this work we will focus our attention on the phenomenon of complementizer deletion (CD henceforward) in Florentine, an Italian non-standard variety, as it differs in several respects with complementizer deletion occurring in standard Italian. The most widely known example of CD, which is grammatical in both Standard Italian and Florentine, is given in (1b):

(1)   a   Credo che abbia già parlato con te
                   I-think that have+subj already spoken with you
                   'I think that he has already spoken to you'
       b   Credo abbia già parlato con te
                   I-think have+subj already spoken with you
                   'I think he has already spoken to you'

Interestingly, in Florentine the phenomenon in question is much more complex than in Italian, since Florentine shows at least three different types of complementizer deletion: the first, which we will call CD1, is present also in standard Italian and corresponds to the case illustrated in (1b); the second, CD2, occurs in virtually all embedded clauses where a clitic element, a negative marker or an auxiliary are present, and the third, described by Benincà (1994), is restricted to appositive relative clauses; we will not address this latter type here, as it probably deserves a separate treatment.

This work will proceed as follows. In section 2 we will describe the distributional patterns of CD1 and CD2, focussing on their similarities and differences. Section 3 discusses some previous analyses offered for CD in general; in particular we will show that a new analysis is necessary in order to suggest a unitary treatment for both CD1 and CD2.

This analysis will be sketched in section 4. By speculating on the features which are common to CD1 and CD2, we claim that both types of CD represent different occurrences of the same general phenomenon, which, following Obenauer (2001), can be labelled "alternative checking" (AC henceforward). This definition permits to capture the important insight that a functional projection can be lexicalized alternatively by different elements, provided the latter are endowed with the appropriate feature which checks the feature contained in the functional head in question.[2] In the case at hand, this basic intuition can be rephrased as follows: the complementizer can be deleted only if another element is able to check the relevant feature in the CP domain. Variation among languages crucially depends on two factors: a) the type of feature which requires to be checked in the CP domain; b) the type of element which can play the role of alternative checker in place of the complementizer. Therefore, this

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[2] A well-known occurrence of AC is found in verb movement: in some languages the main verb checks the features contained in some IP projection, while in other languages an auxiliary is needed. A less well-known case, which will be discussed in section 4 below, has been studied by Zanuttini (1997) and applies to interrogative clauses in some Northern Italian dialects.

analysis provides the modularity needed to capture the fact that the two types of CD have something in common but are subject to distinct restrictions.

Finally, in section 5 we will speculate on the way alternative checking is instantiated in CD2, and in particular on the nature of the C-feature involved and its possible alternative checkers. Section 6 presents a summary of the main results obtained.

2. Two types of CD

2.1. [- realis] CD (CD1)

Florentine displays two types of CD, which are conditioned by different factors. The first, call it CD1, patterns with the well known CD cases occurring in modern standard Italian (cf. Rizzi (1982), Poletto (1995), Giorgi and Pianesi (1997)) and is exemplified in (1b) above. In both Florentine and standard Italian, the presence of elements like clitics or preverbal negation is immaterial, while CD is crucially sensitive to:
-    the class of the selecting verb (bridge vs. non-bridge verbs);
-    the mood of the embedded verb (subjunctive/conditional vs. indicative).
Hence this type of CD is triggered in both languages only when the declarative clause is selected by a bridge verb, as shown in (2):

(2)   a   *Mi rammarico lo faccia   standard Italian
                 me regret it do+subjunctive
                 'I regret that he does it'
         b   Credo lo faccia   standard Italian
                 think it do+subjunctive
                 'I think that he does it'

We use here the definition of bridge verbs given in Vikner (1995: 70). This class of verbs, which includes non-factive "verba sentiendi", such as *believe*, *think* and *hope*, crucially plays a role also in Germanic languages: only these verbs, in fact, allow embedded V2 in those languages (like German and Mainland Scandinavian) that do not display generalized V2 in embedded clauses. Although there is a certain degree of variation among languages on the number of verbs which belong to this class, some "core bridge verbs" (like the mentioned ones) admit embedded V2 in all Germanic languages; we will use only the latter in our examples of CD1 as well.

Furthermore, CD1 is possible only if the declarative clause selected by the bridge verb contains a [-realis] feature, namely it is inflected for subjunctive, as in (1b) and (2b) above, future, as in (3), or conditional, as in (4):[3]

(3)   Credo sarà interessante ascoltarlo
         think it be+fut interesting to listen to him
         'I think that listening to him will be interesting'

(4)   Credo funzionerebbe meglio, se lo riparassi
         think work+cond better if (you) repaired it
         'I think that it would work better, if you repaired it'

On the contrary, CD1 is not allowed when the embedded verb is inflected for indicative, which is characterized by a [+realis] feature:

(5)   *Ha detto viene   standard Italian

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[3] As concerns standard Italian, some speakers deem (3) and (4) marginal or belonging to a higher stylistic level with respect to (1b)-(2b), where a subjunctive is used. Anyway, even these speakers perceive a clear difference in acceptability between (3)-(4) on the one side, and (5) on the other, which is excluded by everybody. All Florentine speakers, on the contrary, fully accept CD in examples like (3) and (4).

has said comes
He said he is coming

CD1, thus, depends on both the selecting verb and the mood of the embedded verb. Moreover, we can notice a few peculiarities concerning the distribution of preverbal elements. In particular, preverbal DP-subjects are admitted, at least for some speakers, as in (6a).[4] Note that subjects cannot be analysed as occurring in a topic position, as shown by the fact that even a quantifier is grammatical in this context, as in (6b):

(6) a   Credo Gianni abbia telefonato
        I-think Gianni has+subjunctive phoned
        'I think Gianni has phoned'
    b   Credo nessuno l'abbia visto
        I-think nobody him has+subjunctive seen
        'I think nobody has seen him'

Conversely, CD1 does not admit preverbal adverbial forms, which are grammatical when the complementizer is present:

(7) a   Credo che fortunatamente/ evidentemente/ probabilmente l'abbia già fatto
        I-think that luckily/evidently/probably it has+subjunctive already done
        'I think that luckily/evidently/probably he has already done it'
    b   *Credo fortunatamente/evidentemente/probabilmente l'abbia già fatto
        I-think luckily/evidently/probably it has+subjunctive already done

Finally, CD1 is subject to a restriction originally noted by Stowell (1981) for English, namely that it is impossible to delete the complementizer when the embedded clause is fronted:

(8) a   Credo (che) abbia già parlato con te   (st. Italian/Florentine)
        I-think (that) he-has+subj already spoken with you
        'I think (that) he has already spoken with you'
    b   *(Che) abbia parlato con te, lo credo
        that he-has+subj already spoken with you, it I-believe
        'That he has already spoken with you, I believe it'

2.2 Argumental CD (CD2)

The second type of Florentine CD (CD2) is not grammatical in standard Italian; it can be distinguished from CD1 on the basis of the restrictions it obeys. CD2 is in fact totally insensitive to the distinction between bridge and non-bridge verbs. In particular, it can be observed with non-bridge verbs (like factives) as well:

(9)   a   Gli dispiace la un venga a casa   (Florentine)
            He is sorry she-cl neg she-come+subj. at home
            'He is sorry she doesn't come home'

Therefore, the class of verbs allowing CD2 is very broad and includes most verbs selecting declarative clauses. On the contrary, verbs that select other types of embedded clauses, with complementizers different from *che*, never allow complementizer deletion, as shown e.g. by the indirect interrogative in (10) below:[5]

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[4] See Giorgi and Pianesi (1997) for a detailed analysis of the two classes of speakers.

[5] Actually, we must specify that both types of complementizer deletion only involve *che*. CD could thus be renamed '*che'*-deletion. The same holds in other languages as well: e.g. in English CD only complementizer *that* can be deleted.

(10)   a   Ti domando se vieni
           you-obj. I-ask if you-come
           'I ask you if you come'
       b   *Ti domando vieni
           you-obj. I-ask you-come

Among verbs selecting declarative clauses, only "affective" verbs seem to resist CD. Verbs like *odiare* 'hate' or *amare* 'love' can in fact marginally have a CP complement, though they hardly allow CD:[6]

(11)   a   Odia *(che) tu gli dica questo
           he-hates that you him-obj tell-subj. this
       b   Adora *(che) tu gli dica questo
           he-adores that you him-obj tell-subj. this
       c   Gli piace *(che) tu gli dia questa risposta
           he likes that you him-obj. give-subj. this answer

Another important contrast with CD1 is found in the fact that CD2 is not limited to [-realis] embedded clauses. Crucially, it is allowed even when the embedded verb is inflected for indicative, and thus definitely contains a [+realis] feature, as in the example in (12) below, where the embedded verb is inflected for present perfect:[7]

(12)   Ha detto un ha portato nulla
          he-has said neg he-bring+ind nothing
          'he has said he hasn't brought anything'

It is particularly interesting to observe at this point that, although CD2 does not obey the two restrictions set above for CD1, there are likewise a few factors conditioning its occurrence. This phenomenon is in fact allowed - or at least strongly favoured - only when certain elements intervene between the matrix and the embedded verb. The intervening elements can, at least apparently (but see section 5 below), be rather diverse, and belong to the following categories:

a)   preverbal clitic pronouns (subject, object, locative, partitive or reflexive clitics):[8]

(13)   a   ?* dice porta il libro
            she-says brings the book
        b   dice tu porti il libro
            she-says you bring the book
            'she says you will bring the book'

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[6] Actually, even affective verbs allow CD when inflected for conditional, and thus selecting for a subjunctive in the embedded clause, consistently with the accepted *consecutio temporum*:
   (i)   Odierebbe/gli piacerebbe tu gli facessi questo
         he-hate+cond/like+cond you him do+subj this
         'He should hate/like that you did this to him'
In our analysis of CD2 we will abstract away from these cases, in that they can probably be included in CD1, as both conditional and subjunctive are characterized by a [-realis] feature.

[7] Note that Florentine, on a par with standard Italian, still has a verbal system which includes subjunctive (while most Central and Southern Italian varieties have lost it altogether and use indicative in its place). Thus the acceptability of (12) in Florentine cannot be explained by the fact that indicative substitutes for subjunctive, and sharply contrasts with (5) above.

[8] Remember that Florentine patterns with Northern Italian dialects in being a subject clitic variety (cf. Poletto 1993, Manzini and Savoia 1998).
Although a sentence like (13a) cannot be judged totally ill-formed, especially if pronounced with the appropriate intonation, there is nonetheless a contrast in the degree of acceptability between (13a) on the one side, and (13b-c) on the other.

       c   dice lo porta
            she-says it-obj. brings
            'she says she will bring it'

b) preverbal negative morphemes:

(14)   dice un porta nulla
         she-says neg brings nothing
         'she says he won't bring anything'

c) auxiliaries:

(15)   a   ha detto ha portato un libro   (*avere* - perfective)
            she-has said she-has brought a book
            'she said he brought a book'
        b *ha detto/disse portò il libro
            she-has said/she-said she-brought the book
        c   ha saputo è venuto   (*essere* - perfective)
            he-has known he-is come
            'He has got to know he has come'
        d *sa viene
            he-knows he-comes
        e   disse stava studiando   (*stare* - progressive)
            she-said she-was studying
            'she said she was studying'
        f   * disse studiò
            she-said she-studied

Unlike CD1, CD2 does not allow preverbal non-dislocated subjects, unless they are topicalized or focussed:[9]

(16)   a   ?*Maria m'ha detto Gianni un ha portato il libro
            M. me-obj has told G. neg has brought the book
        b *Ho saputo nessuno l'ha fatto bene
            I-have known nobody it-obj has done well
        c   Ho saputo un l'ha fatto bene nessuno
            I-have known neg it-obj has done well nobody
            'I have got to know (that) nobody has done it well

Besides these differences, we can however observe some similarities holding between CD1 and CD2. To begin with, CD2 does not allow intervening adverbials, like CD1:

(17)   a Ho saputo che fortunatamente/evidentemente/probabilmente/sicuramente l'ha già fatto
          I-have known that luckily/evidently/probably/surely it has already done

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[9] It is however quite difficult to give definitive judgements on sentences like (16a), in that the DP-subject can easily be interpreted as a left-dislocated element, which does not interfere with CD:
    (i) Maria m'ha detto la mela l'ha mangiata
        Mary me has told the apple it has eaten
        'Mary has told me that, as for the apple, she has eaten it'
What is important to notice at this point is that, in any case, the presence of the DP-subject renders the sentence less acceptable with respect to an analogous sentence with a clitic subject; compare (16a) in the text with (ii) below:
    (ii) Maria m'ha detto la un ha portato il libro
         M. me has told she-cl neg has brought the book
         'Mary has told me she has not brought the book'

'I got to know that luckily/evidently/probably/surely he has already done it'
b * Ho saputo fortunatamente/evidentemente/probabilmente/sicuramente l'ha già fatto
   I-have known luckily/evidently/probably/surely it has already done

Furthermore, also in this case it is impossible to delete the complementizer when the embedded clause is fronted, in line with Stowell's (1981) assumption:

(18)   a   Ho saputo (che) l'ha fatto
             I-have known (that) it he-has done
             'I have got to know (that) he has done it'
        b   *(Che) l'ha fatto, l'ho saputo
             (that) it he-has done, it I-have known

After describing the data relating to the two types of CD, and underlining discrepancies and similarities between them, we will try to propose a unitary analysis for CD in Italian and Florentine. As a starting point, we will briefly summarize other analyses which have been offered for CD, and show that they are not satisfactory for the cases at hand, and especially for what concerns CD2.

3. Previous analyses of the CD phenomenon

The first analysis that we will take into account was offered by Stowell (1981) on the basis of English data. As already discussed, he observed that CD is ungrammatical whenever the embedded clause has been extracted from its base position (cf. the examples in (8) and (18) above). Therefore, he proposed that CD entails the presence of a null complementizer, which has to be properly governed by the main verb in order to be licensed, on a par with empty categories in general.

Although this analysis proves adequate for English CD, it does not account for the facts concerning CD1 and CD2 in Italian and Florentine. As regards CD1, one might adapt Stowell's proposal and assume that, in standard Italian, a null complementizer could only be licensed by bridge verbs and should be endowed by a [-realis] feature; this should prevent its occurrence in [+realis] contexts, i.e. at the root of declarative clauses inflected for indicative. However, this possible adaptation of Stowell's analysis, besides being highly speculative, proves completely inadequate for CD2: indeed, a null complementizer is not expected to be sensitive to the presence of elements like clitic pronouns or auxiliaries in the IP-complement. Therefore, CD2 should have to be treated as a completely different phenomenon, which clearly is not.

An alternative analysis, proposed by Scorretti (1981) on the basis of Old Italian data, treats CD as the optional selection of an IP rather than a CP complement. Given that Old Italian CD is a very widespread phenomenon, virtually allowed in any declarative context, the idea that optionality might play a role seems at first sight attractive. However, a mere recourse to optionality cannot explain the restrictions observed in the two types of CD we are examining here. In both CD1 and CD2, in fact, the deletion of the complementizer represents a possible option only when the relevant contexts are instantiated, otherwise it is ungrammatical.

A further analysis has been put forth by Poletto (1995), who endeavours to draw a unitary analysis for CD in modern standard Italian (CD1) and embedded V2 in Germanic languages. This hypothesis is based on the fact that the class of predicates licensing CD1 and V2 is exactly the same, namely bridge verbs. On a par with Germanic V2, CD1 can thus be explained in terms of embedded I° movement to a [+modal] low C° position, as (19) below illustrates. In this way the two conditions set above for CD1 are linked to each other and simultaneously met: the semantics of bridge verbs is connected with the selection of a declarative clause containing a [-realis] feature, which has to be checked in the relevant position inside the CP layer.[10] Crucially, the [-realis] feature contained in the embedded CP projection can alternatively be checked either by merging the complementizer *che*, or by moving the embedded I° to the C°-head in question; the checking operation is possible only if the embedded I° is likewise

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[10] Adopting a split CP perspective like the one formulated in Rizzi (1997), the modal CP should be quite low inside the CP layer, as Rizzi himself assumes for languages like Polish.

endowed with the appropriate [-realis] feature, indicated by the relevant morphology (subjunctive, conditional or future).

(19)   a   [$_{CP}$ [$_{+moodC}$ che] [$_{IP}$ [$_{I°}$ abbia]… [$_{VP}$]]]
         b   [$_{CP}$ [$_{+moodC}$ abbia] [$_{IP}$ [$_{I°}$ t]… [$_{VP}$]]]

Independent evidence for a low complementizer position is provided by the following Piedmontese and Ligurian data, where two complementizers are lexically realized:

(20)   a   A venta che gnun ch'a fasa bordel   Turin (Piedmontese)
               SCL needs that nobody that+SCL do+subjunctive noise
               'It is necessary that nobody make noise'
         b   A venta che Majo ch'a mangia pi' tant
               SCL need that Majo that+SCL eat more
               'Majo has to eat more'
         c   Sperem che Gianni ch'u lese questu libru   Borghetto di Vara (Ligurian)
               hope that G. that+SCL reads this book
               'We hope that John reads this book'

It is important to underline that the pre-complementizer position occupied by the subject in (20) is certainly not a Left Dislocation position, as shown by (20a), where a quantifier occurs.

Though this analysis may look attractive and adequate for CD1 (as well as for Germanic V2), a problem remains open. Indeed, it is quite difficult to envisage how such a proposal could account for CD2, where no modality is involved and verbal morphology does not seem to play any role at all.

To conclude, we briefly summarize the analysis proposed by Giorgi and Pianesi (1997), who maintain the idea that the trigger of CD is a [-realis] feature, which, in non-CD clauses, is checked by merging a complementizer in a low MoodC position. However, these authors do not analyse CD in terms of movement of the inflected verb to the CP domain; rather they assume the existence of a "syncretic projection", namely a single head containing both AgrS and Mood features, which are checked by the subjunctive verb. Assuming that the specifier of the mentioned syncretic head can be either an A-position (due to the AgrS feature) or an A'-position (because it also contains a Mood feature), they can explain why Italian speakers' judgements on preverbal subjects in CD clauses (cf. exs. (6a-b) above) split into two classes. Speakers who admit preverbal subjects deem the AgrS-feature contained in AgrS/MoodP preponderant; its specifier thus qualifies as an A-position and can contain a DP subject. Speakers who do not accept preverbal subjects, on the contrary, give more importance to the Mood feature, hence Spec(Agrs/MoodP) is an A'-position which cannot contain a DP subject. As in the preceding case, this analysis is designed on the basis of standard Italian data and cannot account for the distribution of Florentine CD2.

From this very brief summary of proposals concerning CD, we retain the feeling that a comprehensive theory should be modular, in order to account for the different types of CD, with different restrictions, which characterize different languages (English, Old Italian, modern standard Italian and Florentine). Following this line of reasoning, we are going to propose in this paper an analysis for standard Italian and Florentine based on the principle of alternative checking (AC), which leaves room for an analysis of the other varieties as well.

4. A new proposal : alternative checking

Since none of the analyses sketched in the preceding section is flexible enough to account for the different contexts in which CD occurs, and in particular for what we call CD2, we will endeavour to analyse complementizer deletion from a different perspective, in the attempt to provide a unified analysis of CD1 and CD2. In this work we will not tackle CD in English and Old Italian, although an analysis of these cases along the same lines is in principle conceivable.

As a starting point of our analysis, we will pursue an idea developed by Zanuttini (1997) and Obenauer (2001), which has remained implicit in the analyses of V2 from the very early days: when

two elements are in complementary distribution, they can check the same feature; hence the name Alternative Checking. This assumption has proved correct for the distribution of V2 in German: the verb can raise to C° only when C° is empty; this in turn implies that the complementizer and the verb moved to C° do the same job.[11]

Zanuttini (1997) speculates on this intuition and discusses other cases where two distinct elements check the same feature. In particular she analyses positive and negative interrogative clauses in some Romance varieties, and observes that, in positive interrogatives, the inflected verb raises to C° triggering subject-clitic inversion, while in negative interrogatives both subject-clitic inversion and I°-to-C° movement are impossible; accordingly she concludes that the preverbal negative marker checks the interrogative feature in C°, thus rendering verb movement superfluous.

Obenauer (2001) examines further cases of AC in interrogative clauses. He analyses two types of interrogatives in some Northern Italian dialects (rhetorical interrogatives and "surprise" questions) and shows that the wh-item checking the highest CP-projection in these clauses can alternate with a modal verb (which is *andare* "go" in surprise questions and *voler* "want" in rhetorical questions) moved into the head of the projection; thus verb movement renders wh-movement superfluous.

In the spirit of the mentioned analyses, we propose that both types of CD described in section 2 represent instances of AC, since in both cases a feature contained in the C-area of the embedded declarative clause can alternatively be checked either by merging the complementizer *che*, or by moving a different element which, whatever its nature, is base-generated within the embedded IP.

In order to account for the different distribution of CD1 and CD2, we assume that the two phenomena crucially differ in the nature of the C°-feature involved in the two cases. Some important consequences arise from this assumption. To begin with, the elements which are suitable to check different features must likewise be different, and this accounts for the divergent restrictions described in section 2. Furthermore, in the spirit of much recent work inspired by Rizzi (1997), it seems plausible to assume that the two different features involved in CD1 and CD2 must be located in two different portions of the CP domain. Finally, the positions where these features are generated may also shed some light on their nature, as we will see later on.

Following what has been suggested in section 3, Poletto's (1995) proposal can be retained for CD1, as it is already accounted for in terms of AC. Indeed, bridge verbs select a CP-complement containing a [– realis] mood feature; this feature must be checked either by merging the complementizer, or by moving the embedded verb. Crucially the latter must be inflected for subjunctive, future or conditional, i.e. it must also be endowed with a [-realis] feature, which matches the feature in C°. This derives the fact that both conditions established in section 2.1. (bridge verb in the main clause and [-realis] inflection in the embedded clause) have to be met in order to allow complementizer deletion.

Therefore, CD1 qualifies as the alternative checking of a modal C-feature, the two alternative checkers being the complementizer and the [-realis] verb. As for CD2, the feature implicated in this phenomenon is indeed much more difficult to identify. Besides the complementizer, such a feature can be checked by clitic pronouns, preverbal negative morphemes and auxiliaries; it is not easy to envisage what these elements have in common. Moreover, the phenomenon is not restricted to a special class of selecting verbs, as is the case for CD1, but can be found with virtually all verbs selecting a declarative CP-complement. It seems, therefore, that an even finer-grained knowledge of the CP layer is needed in order to provide a detailed analysis of the feature triggering CD2.

In this work we propose that CD2 derives from the alternative checking of a Force feature, as defined in Rizzi (1997). This is strongly suggested by two considerations: a) the fact that CD2 is not restricted to modal contexts, like CD1, but is virtually possible in all embedded declaratives. Hence, the type of feature involved in CD2 must always be present, and Force is. b) The analysis of the different distribution of CD1 and CD2 leads us to hypothesize that CD2 targets a projection located higher than the one implicated in CD1.

To begin with, consider the different behaviour exhibited by CD1 and CD2 with respect to the availability of a non-dislocated DP-subject, here repeated in (21).

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[11] Some analyses proposed for V2 assume the presence of an Agreement feature, which can alternatively be checked by the verb or by the complementizer.

(21)   a   Credo Gianni abbia telefonato   CD1 (St. Italian and Florentine)
            I-think Gianni has+subjunctive phoned
        b   *Maria mi ha detto Gianni un ha portato il libro   CD2 (Florentine)
            Maria to me has said Gianni not has brought the book

We can assume, following Poletto (1995), that the preverbal embedded subject is located inside the CP layer; this is empirically supported by the examples from Piedmontese and Ligurian quoted in (20) above, where two *che*-complementizers are overtly realized and the subject is placed between them. Thus the sequence complementizer-subject-complementizer illustrated in (20) provides evidence that, firstly, *che* can check two different types of C°-head in Romance languages, and, secondly, the subject is located between these two C° positions.[12]

Consequently, we can account for the different behaviour observed in (21a) and (21b) above by assuming that the C°-feature checked by clitics, auxiliaries or negation in CD2 is higher than the subject position, and corresponds to the higher *che* in the examples in (20), while the C°-feature checked by the [-realis] verb in CD1 is lower than the subject, and corresponds to the lower *che* in (20). Hence, the subject will be able to precede the [-realis] verb, as in (21a), but not the elements involved in CD2 - like the negation morpheme in (21b) - which lexicalize a head situated higher than the subject position. Therefore, the contrast holding between (21a) and (21b) provides empirical support for the hypothesis that the AC process involved in CD2 occurs at a higher level with respect to CD1.

Following the same line of reasoning, it is possible to explain the ungrammaticality of preverbal adverbials, in both CD1 and CD2, as in (22a) and (22b) respectively:

(22)   a   *Credo fortunatamente/evidentemente/probabilmente l'abbia già fatto
            (I) think luckily/evidently/probably it has+subjunctive already done
        b *Ho saputo fortunatamente/evidentemente/probabilmente/sicuramente l'ha già fatto
            (I) have known luckily/evidently/probably/surely it has already done

Assuming Cinque's (1999) analysis of sentence structure, adverbials are located in the specifier positions of different functional projections inside the IP layer, each corresponding to the semantics expressed by the adverbial element. Since adverbials are assumed to occupy fixed positions, we can use them as a diagnostic to measure how high the inflected verb moves. In this perspective, the fact that sentences like (22) are ungrammatical comes as no surprise, since we have assumed that both the [-realis] verbs implicated in CD1, and auxiliaries, clitics or negation involved in CD2, lexicalize a C°-feature. If this is true, there is no way to derive the order given in (22): in any case the moved elements will be higher than IP, hence higher than adverbials.

Therefore, if CD1 is connected with a modal feature located in a low CP-position, which can be reasonably identified with Finiteness, assuming Rizzi's (1997) structure of the CP layer, CD2 will correspond to the highest complementizer position, namely Force.

5. CD and the Force Projection

In the preceding section we assumed that CD2 crucially implicates the Force projection and provided empirical support to this claim. A question that can be asked at this point is the following: what does Force really mean? Broadly speaking, Force simply indicates that the embedded sentence qualifies as

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[12] Due to space limitations, and given the complexity and the high number of projections present in the CP layer, we cannot analyse preverbal subjects in details. For further discussion on the nature of the position occupied by preverbal subjects see Poletto (2000). Here we simply report the structure of the left periphery proposed in the mentioned work:

[CP Aux to C / absolute past particle/exclamative clauses [LD LD/invariable SCL[CP modal wh [SpecAGrCP DPsubj.[CP wh-phrases [CP QP[CP deictic Subject Clitics [Subject clitic inversion [CP ch/lo [IP]]]]]]]]

The highest CP projection is occupied by Aux to C, absolute past participles and exclamative wh-phrases; this is immediately followed by the Left dislocation projection, which is in turn followed by two distinct types of interrogative wh-phrases; the DP-subject position is located in between the latter.

an argument of a higher predicate; in particular, it encodes the notion of "sentence type", e.g. declarative, interrogative, etc.

As noted above, the fact that CD2 is possible only in declarative contexts clearly indicates that the notion of sentence type plays an important role in this regard. Indeed, if we hypothesize that I° contains sentential features, as is normally assumed for, e.g., interrogative clauses (cf. among others Rizzi (1991)) and imperative clauses (see Rivero (1991)), we expect that an element which is inflectional in nature, like an auxiliary or the negative morpheme, may be able to check this type of feature. In other words, we claim that I°-elements are endowed with a sentential interpretable feature, which has its uninterpretable counterpart in the highest CP projection, ForceP.[13] Crucially, we argue that the uninterpretable sentential feature contained in the embedded Force projection can be checked and deleted in two alternative ways: either by merging the complementizer *che*, or by moving an inflectional element.

An apparent counterexample is represented by clitic pronouns, which, as discussed in section 2.2, can perform the role of alternative checkers of Force, on a par with negation and auxiliaries; while the latter are clearly inflectional elements, clitics are generally considered to be arguments of the verb, thus nominal in nature.

Though the argumental nature of clitic pronouns cannot be denied, under many recent treatments (Sportiche (1996), Manzini and Savoia (1998), (1999), Cocchi (1999), Poletto (2000) among others), Romance clitics are indeed analysed as part of the inflectional morphology related to argument positions.[14] Consequently, we can assume that also clitic pronouns are 'inflectional' enough to be able to check the Force feature; from this perspective, they do not differ much from negation and auxiliaries.

It is also worthwhile discussing a question which might arise at this point. It is in fact obvious that clitics, auxiliaries and negation occur in non-declarative clauses as well, though in this case they do not seem to partake of any C°-feature checking operation. However, the problem is only apparent, in that, as pointed out in (10) above, the alternative checking operation performed by inflectional elements is an option which is restricted to declarative clauses, and *che* is the sole complementizer which can be deleted.[15] The reason can be found in the intrinsic semantics of complementizers: *che*, on a par with English *that*, represents some sort of 'default' complementizer, somehow semantically poorer or less specified than the others: indeed it does not have a specific meaning, but simply signals that the clause it introduces is a subordinate one.[16] Vice versa, in embedded non-declarative clauses, introduced by complementizers like *se* ('if'), *perché* ('because'), *poiché* ('since'), etc., it is impossible to delete the complementizer without causing a semantic loss; consequently, inflectional elements, though present, will not raise to the CP layer and the checking of Force° will always be performed by merging the complementizer.

To conclude, we must consider another aspect of the phenomenon in question. As noted in section 2.2, all elements that can alternate with the complementizer in CD2 are clitic in nature. This is obviously true for clitic pronouns, but also for preverbal negation; as for auxiliaries, even when they are not monosyllabic, they have the well known property of moving higher than main verbs (which is

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[13] In Chomsky's (2001) terms, the uninterpretable feature contained in Force° acts as the probe of a feature attraction operation, while the interpretable feature contained in I° qualifies as the goal.

[14] Romance clitics are indeed composed of a bundle of inflectional features (e.g. person and number) and, under the mentioned treatments, they are base-generated in specialized positions between I° and C°. The inflectional nature of these clitics results evident, for example, in many Northern Italian dialects, where the inflectional morphology attached to the verb is often blurred and the relevant information on person and number is conveyed only by the subject clitic pronoun (cf. Manzini and Savoia (1998)).
Due to space limitation, we refer to the cited works for further details on the inflectional nature of clitics.

[15] The same obviously applies also to CD1, though verbs inflected for subjunctive may be present in other types of embedded clauses as well.

[16] As hinted at in the text, also English *that* can in fact be rather freely deleted. Furthermore, note in passing that both *che* and *that* can be used as (subject or object) relative pronouns as well; this adds to the assumption that these elements do not have a specific semantics, unlike other complementizers, and can serve more purposes.

incidentally a typical property of clitics with respect to their tonic counterparts).[17] Therefore, all of the elements acting as "alternative checkers" in Florentine are heads with clitic-like properties which move to the highest head position, Force°, in order to check and delete a feature.

In this perspective, intervening XPs should not affect the derivation, which features head movement, in line with Rizzi (1990) and related works. This leads to the wrong prediction that sentences like (23) below, with an intervening DP-subject, should be acceptable, contrary to the facts:[18]

(23)   *Ha detto un Gianni mangia
         (he) has said not Gianni eats

The same holds in the case of left dislocated or focussed elements:

(24)   a   *Ha detto lo, il gelato, ha mangiato
              (he) has said it the ice-cream has eaten
         b   *Ha detto un IL GELATO ha mangiato
               (he) has said not THE ICE-CREAM has eaten

A possible solution that we can tentatively offer to overcome this problem is to assume that sentences like (23) and (24) should be ruled out by an independent PF constraint: since, in Romance languages, a clitic element and the inflected verb form a unique phonological constituent, they do not admit intervening XPs. It is in fact well-known that in these languages clitics can be separated by the inflected verb only by other clitics, but not by maximal projections, as exemplified in (25) from Florentine:

(25)   a   un mangia più
              not eats anymore
              'he does not eat anymore'
         b   * un più mangia
                not anymore eats
         c   un lo mangia più
              not it eats anymore
              'he does not eat it anymore'

The consequence is that sentences featuring CD2 do not admit the presence of full DP-subjects. Examples like (16a-b) above, with the subject preceding the clitic, are ruled out by the assumption that the clitic element must raise higher than the subject position in order to perform the checking operation in Force. Sentences like (23), with the clitic preceding the subject, are instead ruled out by

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[17] Though finite verbs are assumed to raise to I° in Italian, and in Florentine as well, the empirical data show that they are not able to perform checking of Force°, unlike clitic elements. Thus we can conclude that, even in these varieties, auxiliaries move higher than main verbs, as is commonly assumed for languages like English.

[18] The ill-formedness of sentences like (23)-(24) is indeed surprising, if we analyse CD2 as the AC of the highest C° position, Force°, which is located higher than subjects, left dislocated and focussed XPs.

In addition to what proposed in the text, another possible solution to this impasse might be to assume that checking of Force° is not performed via movement. In Chomsky (1999), movement is conceived as a complex operation formed by three distinct steps: Match, Agree and Pied Piping of the whole category. However, he also assumes that the last step of this complex operation may not take place; thus checking does not necessarily induce Pied Piping of the whole category, but may simply be performed via Agreement of the two elements involved (probe and goal), hence without movement at all.

Assuming that this is correct, we might exploit the mechanism of checking by Agreement in order to account for the ungrammaticality of sentences like (23) and (24). Following this line of reasoning, CD2 would not entail movement of an I°-element (clitic, preverbal negative morpheme or auxiliary) to Force°, as assumed so far, but simply qualify as checking via agreement between the uninterpretable feature in the CP layer and the interpretable one in I°.

Since this hypothesis needs further discussion, we leave the question open for future research.

PF constraints, of the type independently at work in examples like (25). The situation is different in CD1, where the presence of a DP-subject is allowed (cf. (6) above), since the subject position precedes the head implicated in this operation, Finiteness.

6. Conclusion

In this work we have proposed a modular approach to CD phenomena based on the observation that Florentine displays two types of CD, one of which is also present in standard Italian, while the other, to the best of our knowledge, has never been described before. The two types of CD obey different syntactic constraints concerning the elements that must occur in the embedded clause in order to allow CD, but also display a similar behaviour in other respects.

Comparative work on CD1 and CD2 leads us towards a more flexible perspective, in order to account for the lack of a lexical complementizer in a rather uniform way. If the proposal put forth in this work proves correct, the two phenomena examined here (and in all probability also the other existing CD cases) share a core syntactic property: both emerge from the alternative checking of a C°-type feature. The feature in question can in fact be checked either by merging an element with the appropriate matching feature (the complementizer *che*), or by moving an element generated in the IP layer which is endowed with the same relevant feature.

The two CD processes crucially differ in two respects, which are strictly connected to one another. Firstly, CD1 and CD2 target different C°-features (respectively Finiteness and Force); secondly, the elements that can serve as alternative checkers, in place of the complementizer, also differ: indeed, a [-realis] verb can check Finiteness in CD1, while a clitic inflectional element (clitic pronouns, preverbal negation or auxiliaries) can check Force in CD2.

Although a more precise analysis of the CP layer in general, and of the semantic features it encodes in particular, would still be desirable, the system we have outlined presents two main advantages: on the one hand, it does not encode optionality in the syntactic system itself, but derives it from the presence or absence of the complementizer in the numeration; on the other, it connects the syntactic phenomena to the semantics of the projections targeted.

This analysis surely has to be verified on the basis of other CD constructions, such as CD in English and in Old Italian, which are beyond the scope of the present paper; notwithstanding, it is our opinion that this analysis provides an interesting modular perspective which can in principle account for other phenomena in the CP area as well.

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