In recent work, it has been suggested that the structure of the Complementizer Phrase (CP) is more complex than previously thought. Languages such as Italian, Bulgarian, and Dutch provide evidence for a split CP. In this paper, I examine the Modern English CP and show that there is cross-linguistic variation. I also explore earlier versions of English and identify some reasons why one language, or stage, might have a more expanded CP than another language, or stage.

During the last decade, E. Hoekstra (1993), Rizzi (1997), and Cinque (1999), to name but a few, have suggested a more expanded functional projection to accommodate the complementizer and other material appearing on the left edge of the sentence. Previously (e.g. Lasnik & Saito 1992; McCloskey 1991), topics and sentence adverbs had been seen as adjoined to the main clause. Adjunction is not very restrained and therefore it is good to eliminate it from the grammar. One way to do this is to think of the 'adjoined' elements as occupying separate functional categories, as part of an expanded Complementizer Phrase (hence CP).

Rizzi (1997: 283) argues that "the complementizer system [is] the interface between a propositional content (expressed by the IP) and the superordinate structure (a higher clause or, possibly, the articulation of discourse, if we consider a root clause)". Therefore, the CP contains elements that look outside which he calls Force (following Chomsky 1995), and those that look inside, which he refers to as Finite. In addition, the CP (optionally) accommodates Topic and Focus. The structure of such an articulated CP is given in (1):

1. ... Force ... (Topic) ... (Focus) ... Fin IP

Rizzi's (8), p. 288

In this paper, I use the term `complementizer' loosely as the head of either the Force or the Fin projection, and will exclude coordinate conjunctions from the discussion.

Cinque (1999) holds that CP and IP do not suffice because adverbs need to be accommodated. The CP needs to accommodate speech act, evaluative, and evidential adverbials.
and modal affixes in certain languages. Cinque does not use Rizzi's categories, unfortunately, and does not test the compatibility of these adverbs with topics and focus.

In sections 1 and 2, I apply Rizzi's and Cinque's respective arguments to English and claim that a finite CP contains either a finite complementizer that or a sentence adverb (but not both), and optionally a topic. This suggests cross-linguistic variation and indicates that that is in the ForceP and, in accordance with work by Koopman (1996), that either the head that or the specifier position containing the adverbs is filled but not both. The non-finite CP contains at most one C, namely for. In section 3, I show that in older varieties of English that was a Fin, not a Force, and the non-finite CP was quite expanded. I suggest the reanalysis from Middle to Modern English took place because of changes (a) in where the tense features were situated, and (b) changes in complement subcategorization.

1 Complementizers and topics

Rizzi (1997) maintains that, in Italian, the finite complementizer che is in Force but that the infinitival di occupies Fin. The evidence for this comes from topicalization and left dislocation. The finite complementizer precedes the Topic, as in (2), whereas the infinitival one follows, as in (3), both from Rizzi (1997: 288):

2. Credo che il tuo libro, loro lo apprezzerebbero molto  
   believe that the your book they it appreciate much  
   `I believe that they would appreciate your book a lot'.

3. Credo, il tuo libro, di apprezzarlo molto  
   believe the your book for appreciate-it much  
   `I believe `of' to appreciate your book very much' (Rizzi’s gloss).

A tree for a sentence such as (2) would look like (4):
The English finite complementizers *that* and *for* behave like *che*, as (5) (sentence is taken from McCloskey 1991) and (6) show:

5. She maintains that Irish stew she sort of likes.
6. ... for Irish stew I sort of like.

This means that *that* (see also Rizzi 1997: 301) and finite *for* are in Force, not in Fin\(^3\). Historically, this is probably always the case for *for*, which is first attested as a finite complementizer around 1200, according to the OED. Thirteenth century (7) and (8) show that *for* precedes *that* and *if*, and fifteenth century sentences such as (9) show that topics follow finite *for* and that *for* was therefore in Force:

7. Layamon, *Brut*, Otho 5453
   for þat he hadde isleh3e moche of hire cunne
   for that he had slain much of their people
   'because he had slain many of their people'.
8. Idem, 483
   For 3if we here 3erneþ wonie mid Greckes
   for if we agree to live here among the Greeks
   'because if we agree to live here among the Greeks'.
9. York Plays, 10,12
   For frenshippe we haue foune
   'because we have found friendship'.

The occurrence of (7) shows that *that* is not in Force, but in Fin till about 1500, persisting as late as
1600. Extra evidence for this claim is that who that sequences, as in (10), occur, as well as constructions such as (11). Both are from the fifteenth century, and in (10), a relative (argued by Rizzi to be in the highest CP) precedes the complementizer that, and in (11), a topic as for such mony does:

10. Paston Letters, #346, (1471)
   or who that dothe it I wyll paye
   `or who that does it I will pay'.

11. Paston Letters, #75 (1465)
   And I told him that, as for such mony that shuld ..., I wold ...
   `and I told him that, as for such money that should ..., I would'.

The Modern English infinitival complementizer for in (12) is similar to Italian di in (3) in that a topic cannot follow it. The reason is that for needs to be adjacent to the subject for Case reasons (cf. Rizzi 1997: 301). However, it is unlike di in that a topic cannot precede it either, as the ungrammaticality of (13) shows. Therefore, for must be in Force:

12. *I expect for her homework her to do.
13. *I expected her homework for her to do.

If we test the position with other non-finite complementizers, ones that are not relevant for Case to the subject, topics or focus elements cannot precede (or follow) them either:

14. a. *He swam the channel to England in order to get.
    b. *He swam the channel in order to to England get.
15. a. *I wonder to Alaska whether to go.
    b. *I wonder whether to Alaska to go.

Thus, non-finite complementizers in English do not fit readily in the expanded CP. It seems as if only the non-finite complementizer can be present, not a topic or focus. In older texts, objects never follow for when they are in their base position (or in Spec AGRoP), as in (16) from the 13th century, and hence there is never evidence that the object is in Topic and for in Force:

16. Layamon, Brut, Otho 8490
for to hine finde
`in order to find him'.

Non-finite *for* does follow topics, however, and this provides evidence that it is in Fin in an expanded CP in a fourteenth century text, as will be shown in section 3.

In Modern English, the finite complementizers occupy the Force position and can be combined with a topic, but the non-finite ones cannot. The form and complexity of CPs varies cross-linguistically, as is shown for older English in (11) above. Abraham (1997: 39) argues in a similar vein for German that there is no TopP or FocP between CP and IP in German, whether the C is finite or non-finite. In Dutch, the same is true: (17) and (18) are comparable to (2) and (3) respectively, but are ungrammatical, whether the topic precedes or follows *dat*, as in (17ab). Since infinitival clauses lack subjects in Dutch, placing the object *een boek* after *om* would not indicate the position of *om*:

17. a. *Ik geloof dat jouw boek ze waarderen*
I believe that your book they appreciate
b. *Ik geloof jouw boek dat ze waarderen*
I believe your book that they appreciate
   ‘I believe they appreciate your book very much’.
18. *Ik ging naar de winkel dat boek om te kopen*
I went to the store that book for to buy
   ‘I went to the store to buy that book’.

In languages with more pronounced CPs, e.g. Bulgarian has multiple, fronted *wh*-words, there is evidence for both a focus and a topic in the CP. In (19), the topic is *filma* and the focus is *Marija*. The focus is always followed by *li*:

19. Filma Marija li go gleda (ili Peter)
Film Marija FOC it watch (or Peter)
   ‘As for the film, is it Marija who is watching it (or Peter)?’

Section 1 applies Rizzi’s expanded CP to English and indicates that there is variation as to whether or not CP can contain a topic and focus in addition to a complementizer. The next section adds sentence adverbs to the expanded CP.
2 Complementizers and sentence adverbs

Cinque (1999), as mentioned, argues that CP and IP are not sufficient since the CP needs to contain speech act, evaluative, and evidential adverbials (honestly, unfortunately, evidently respectively), and modal affixes in certain languages. Cinque examines which adverbs can precede which other adverbs and comes up with a hierarchy for a variety of languages. I will examine which combinations of adverbs and topics are grammatical, and will show in accordance with Koopman (1996) that a Specifier and a Head cannot both be filled.

Sentence (20) is a sentence with a speech act adverb and topic, which seems slightly odd but is acceptable to native speakers. The structure would be one with honestly in ForceP and those books in TopicP (note that Cinque does not use Rizzi's terms). (21), however, is a problem since, in Cinque's approach, frankly is higher in the tree than surprisingly, but the two cannot occur together as in (21):

20. ?Honestly, those books, he should have read before class.
21. *Frankly, surprisingly, he read those books.

This suggests that the English CP is restricted. Checking a (2 million word) Modern American Spoken Corpus, 3 works of Jane Austen (Emma, Pride and Prejudice, and Persuasion), and Charles Darwin's Origin of Species, no combinations such as (21) are found. Thus, matrix CPs such as (20) and (21) show that the CP contains a ForceP with the sentence adverb and a TopicP with a topic. This also suggests that speech act and evaluative adverbs are both in ForceP.

Cinque says very little about subordinating conjunctions, which is surprising since these originally motivated the use of C and CP (Chomsky 1986). However, testing what can come after (or before) a subordinating conjunction provides the following surprising results:

22. a. *I know that frankly she should be concerned.
   b. *I know frankly that she should be concerned.
23. *I know that surprisingly he left.
24. ?I know that allegedly he left.

This complementarity between complementizers and sentence adverbs is confirmed by using the same
texts used above. In three novels by Jane Austen, \textit{happily} can only occur in the CP domain, as in (25), if \textit{that} is not present. In cases when other CP material is present, as in (26) and (27), it does not occur at the beginning but after the subject in the IP:

\begin{center}
\begin{tabular}{lc}
25. & \textit{Emma}, vol. 2, ch 5 \cr & Happily he was not farther from approving matrimony than \ldots \\
26. & \textit{Emma}, vol 1, ch 24 \cr & It is what we happily have never known any thing of. \\
27. & \textit{Emma}, vol 3, ch 4 \cr & As I am happily quite an altered creature.
\end{tabular}
\end{center}

The contemporary corpus does include one example of (22a), but the \textit{frankly} seems very parenthetical, or perhaps it is used by the speaker as evidential adverb rather than speech act one:

\begin{center}
\begin{tabular}{lc}
28. & White House Press Briefing 1997 \cr & The President said that, frankly, he'd been somewhat concerned that, \ldots \\
\end{tabular}
\end{center}

One reason why (22b) might be ungrammatical could be that both \textit{that} and \textit{honestly} are heads. This, however, is not likely since the adverb can be expanded, as in (29) and (30), and hence constitutes a phrase:

\begin{center}
\begin{tabular}{lc}
29. & To be honest, I don't know who did it. \\
30. & Quite honestly, I don't know the answer.
\end{tabular}
\end{center}

Koopman's `Generalized Doubly Filled Comp Filter' provides an answer, while keeping the insights of Rizzi and Cinque: a Spec and Head cannot both be filled and hence (31) is impossible:

\begin{center}
\begin{tabular}{lc}
31. & \begin{tabular}{c}
\text{ForceP} \\
. \quad \text{Force'} \\
\quad \text{Force} \\
\quad \text{IP} \\
\quad \text{honestly} \\
\quad \text{that} \\
\quad \text{she left}
\end{tabular}
\end{tabular}
\end{center}

Epistemic adverbs (e.g. \textit{probably}) are in the IP domain, as (32) and (33) show:
32. *I know that probably IP[he left].
33. I know that IP[he probably left].

The IP also needs to include three tenses, an irrealis mood, and countless aspects (see e.g. Cinque 1999: 77), but these are left out of this discussion.

Accordingly, the complementizer *that* is in complementary distribution with speech act adverbs (*frankly* in (22)) and evaluative adverbs (*surprisingly* in (23)), expected if both are in ForceP. It is marginally in complementary distribution with the evidential ones (*allegedly* in (24)). It is not clear to me what that means about the position of the evidential adverb. *That* expresses Force but, against Cinque, a lower CP category as in (22a) cannot be filled by an adverb, or be the specifier of Force as in (22b). Sentence (33) shows that the complementizer is not in complementary distribution with the epistemic adverb, expected if the latter is part of the IP domain. Putting these facts together with those in (5), the English finite CP complex includes a ForceP and a TopP.

The same complementarity between sentence adverbs and the complementizer can be seen with non-finite complementizers, as shown in (34) and (35). These sentences are only comprehensible if the adverbs are seen as manner adverbs modifying the subordinate VP, not as speech act or evaluative ones:

34. *He made preparations in order frankly to invade the country.
35. *He made preparations in order surprisingly to invade the country.

Because of the existence of this complementarity and the incompatibility of topics with *for*, as in (12) and (13) above, I assume Modern English non-finite CPs have only one CP, as in (36), with only the head filled. For older constructions, I will argue that Rizzi’s structure provides insight and that finite *for* is in Fin:

36. CP
   . C'
      C  IP
         . I'
            for  I  VP
Apart from not using a split CP, I assume that an infinitival C is typically connected with [+future] that provides a purposive meaning, as in van Gelderen (1993: chap 5). Thus, in (37), the doing would be future with respect to the liking, which is a deontic verb:

37. I would like for you to do your homework.

Verbs that are not deontic, such as believe, never have infinitival Cs, as (38) shows, and lack the purposive meaning. Their tense cannot be future but needs to be `anchored' to the tense of the matrix:

38. *I believe for him to be nice.

If the non-finite C for in English has future, it should be in Rizzi's FinP, but since there can only be one C element in the embedded clause, as (12) and (13) above show, the name is less important. In section 4, I suggest that the presence of these special features connected to infinitival for in Fin is a reason why the CP cannot be split.

Summarizing, English finite CPs are split into a ForceP and TopicP, with that in Force; non-finite CPs are not `split'.

3 Older Varieties

In this section, I will examine some older varieties of English and argue, in keeping with the conclusions of section 1, that the complementizer system is very different from that of Modern English. Some of the conditions under which the reanalysis takes place are interesting and provide insight in the conditions that determine the variation in the structure of the CP: (a) the infinitival CP becomes reduced once CPs headed by for become verbal complements, and (b) that reanalyzes when the tense features relocate from C to I. I will start with a description of the `richness' of the infinitival CP in Middle English, and then of the finite CP.

3.1 Infinitival CPs

*Cursor Mundi* is a fourteenth century manuscript of which four different versions exist. Morris's (1874-1893) edition has 2 Northern (Cotton and Göttingen, the a and c examples below) and 2 Midlands
versions (Fairfax and Trinity, the b and d versions below). In *Cursor Mundi* (hence, CM), *at* and *till* function as infinitival markers; *till*, *to* and *for* are complementizers. The word order is VO and hence objects that occur before verbs, as in (39), indicated in brackets, have preposed. The complementizer *till* precedes the topic *all oure bale* in the northern (39ac), and possibly a focus *ai* in (39a), and hence *till* is in ForceP. The non-northern versions just have a topic. From this sentence, it is not clear what the status of *for* is, it could be in FinP, as in (40), or in I (remember that finite *for*, as in (7) to (9) above, is in Force):

39  a. CM, Cotton, 105-6
   Til [all oure bale] ai for to bete,
   Oure lauerd has made þat maiden.
   so all our sorrow always for to heal our lord has made that maiden
   `Our lord has created that woman in order to heal our sorrow forever'.

   b. Idem, Fairfax
   and [al our bale] for to bete.

   c. Idem, Gottingen
   til [all vr balis] for to bete.

   d. Idem, Trinity
   [alle oure bales] for to bete.

40. ForP
   .   For'
   For  TopP
   till .   Top'
   Top  FocP
   all oure .  Foc'
   bale  Focus  FinP
   ai .   Fin'
   Fin  IP
   for .   I'
   I  VP
   to  V
   bete
In all versions, the construction without an overt ForceP, as in (39bd), occurs frequently, see e.g. (41):

41  a. Cotton I
    Man yhernes rimes for to here
    ‘People yearn to hear rhymes’.

   b. Men couettes rimes for to here.
   c. [Me]n 3ernis iestis for to here.
   d. Men 3ernen iestes for to here.

   As for non-finite for, there is evidence that it is in fact in FinP. In (42), there is a subject, and since for precedes it, it must be in FinP (at/to are infinitival markers in (42ac)):

42  a. Cotton, 232; 236
    þis ilk bok is es translate ...
    For the commun at understand

   b. þe commune for til vnderstande.
   c. For þe comen to vnþerstand.
   d. For comune folk of engelonde.

The structure of (42ac) would be as in (43), very similar to (40):

43. FinP
   . Fin'
   Fin IP
   for . I'
   the commun  I VP
   at V
   understand

Visser (pp. 1039-40) lists a number of instances, especially in the northern Cotton and Midlands Fairfax where to and at are separated from the infinitive by a pronoun or nominal object, as in (44ab), (45ab), (46a), and (47ab). The Göttingen and Trinity versions have to immediately before the infinitive in (44) to
(46):

44. a. CM, 7746 Cotton
   Yee send a man at it receiue
   b. Idem, Fairfax
   3e sende a mon atte hit rescveyue
   c. Idem, Göttingen
   3e send a man it to rescayue
   d. Idem, Trinity
   sendeʃa mon hit to rescye

45. a. CM, 8318 Cotton Fairfax
   To temple make he sal be best
   b. Idem, Fairfax
   to temple make he sal be best
   c. Idem, Göttingen
   þe temple sal he make wid ese
   d. Idem, Trinity
   þe temple bi him made shal be

46. a. CM, 23784 Cotton
   We fine noght to it al fulfill
   `we end not to fulfill it all'.
   b. Idem, Fairfax
   we fine neuer hit to fulfille
   c. Fine we neuer to ful-fill
   d. Hit to fulfille we fuyne nou3t

47. a. CM, 27363 Cotton
   þar nan has might to oþer boru
   `that noone has a right to rescue the other'.
   b. Idem Fairfax
   þat nane has mi3t at oþer borou
   c. missing
   d. missing
Since most of these occur in Cotton and Fairfax, the use is not arbitrary, but indicative of a structural difference. In van Gelderen (1993), it is argued that split infinitives show that to and at are in I, and that the I position is activated in the late fourteenth century. The evidence in (44) to (47) shows that to is in I at least half a century earlier. These data fit well with earlier trees, such as (40), (with the addition that the object is in Spec AGROp for Case reasons).

In short, in CM, there is evidence for a split infinitival CP. Till may be in Force and for in Fin, e.g. in (39ac). At and to are infinitival markers, most likely in I, e.g. in (44ab). I summarize the constructions that occur in (48) to (52):

48. till Object (XP) for to Verb: Northern
49. Object for to Verb: all ms
50. Object them for to Verb: Northern
51. for Subject to Verb: Northern
52. at/to Object Verb: Cotton and Fairfax

In the next subsection, I describe the finite CP, before going into the possible reasons for the differences.

3.2 Finite CPs

As mentioned above, that is in Fin in Middle English. This is clear e.g. from (11) above, repeated here as (53), where the relevant that follows the topic:

53. Paston Letters, #75 (1465)
   And I told him that, as for such mony that shuld ..., I wold ...

More than a hundred years after the Paston Letters, this is changing, as (54) shows:

54. Shakespeare, Hamlet, II, i, 111
   I am sorrie that with better speed and iudgement I had not quoted him.

The number of constructions where that follows a relative pronoun, as in (10) above, is very limited as well, e.g. one in Hamlet, none in Macbeth.
As for the finite complementizer *for*, mentioned in section 1, (6) and (9) show it is in ForceP. This is probably so because its meaning is quite specific, i.e. relevant to connecting the embedded sentence to a higher one. There is no reason for these to be reanalyzed since as will be shown below these typically function as adverbials not as verbal complements.

4 Reanalysis of CP

In this section, I indicate two other changes that occur in the complementizer system that are relevant. These are of course not the only changes. The explanation for finite CPs is brief and will be discussed first; the one for non-finites is longer.

Sentences such as (44) above show that the I position is created for infinitival *to*. It is also known (e.g. Roberts 1993; van Gelderen 1993; 2000) that Verb-second disappears in the 16th and 17th centuries because there is a shift of the tense features from C to I. A possible scenario for the changes in the finite CP system is that since tense features are no longer in Fin but in I, *that* is reanalyzed as a marker of a subordinate clause, i.e. a Force. This brings *that* in line with finite *for*.

The non-finite complementizer *for* becomes syntactically restricted in that it cannot occur together with a focus or topic, as (55) shows:

55. *I wanted Mary for him to help.

This change occurs before 1600. In Chaucer's English from around 1400, *[for to V O]*, *[for S to V O]*, and *[O for to V]* occur, which suggests that the non-finite CP is still expanded, since an object precedes *for*. Some 200 years later, in Shakespeare, there are 32 occurrences of *for to* left, and a few *[for to V O]*, but no objects precede *for*. The regular construction is *[for S to V O]*. The rarity of preposed objects is evidence for a change towards a non-split CP. In other texts, e.g. Sidney's 1580s *Defence of Poetrie*, Tourneur's 1611 *Atheists Tragedie*, preposed objects no longer occur either.

Having established when the change to a non-split CP may have taken place, I now turn to a possible reason, namely the subcategorization of infinitival CPs with *for* by (deontic) verbs. As is shown in van Gelderen (1998), an infinitival clause with *for* is used as a complement to a verb for the first time around 1250. It is very rare though, since in a long text such as Layamon's *Brut* (Otho version), there is only one clear instance, namely (56):
56. Otho, 5523
   moche he lofde echn(e) cnihht. þat lofde for to segg(e) riht,
   `Much he loved every knight who loved to say the truth'.

In Chaucer, 150 years later, this construction becomes more frequent; and so do (58) and (59), where
the position or the subject indicates where for and to are. The construction can be seen as evidence that
the verb selects for as a complementizer with deontic verbs such as desire that indicate future. As
mentioned above, the CP is still `expandable', even though most instances of split CP are with adjunct
CPs as in (60), not with complements:

57. Canterbury Tales, Knight's Tale, I, 1255
   Som man desireth for to han richesse.

58. Merchant's Tale IV, 1615
   Nedeth namore for hym to go ne ryde,
   `Did not need anymore for him to ride'.

59. Parson's Tale, X, 786
   That oother manere is whan men or wommen preyen for folk to avauncen hem, oonly for
   wikked flesshy affeccioun that they han unto the persone.
   `The other way is when man or woman pray for people to help them only out of wicked
   devotion that they have for the person'.

60. Wife of Bath's Tale, III, 1029
   Assembled been, his answere for to heere.

If subcategorization, i.e. the selection of a complement, is always of a sister CP, it follows that selection
of a split CP with the future features in Fin is impossible, and this is what I claim happens.

So, when verbs such as expect, hope, desire start having for clauses as complements, as in
(56), an expanded CP becomes incompatible. Assuming that verbs can only determine the features of
their sister complement (not one that is embedded), a clause with for cannot be expanded (for needing
to be in Fin for the features).

5 Conclusion
I have extended Rizzi and Cinque to Modern English and have shown that its CP is restricted to a ForceP and TopicP in the case of finite clauses and to a (non-split) CP in the case of a non-finite clause. In doing so, I have indicated some cross-linguistic variation both in where complementizers are placed (Force or Fin) as well as the `expandability' of the CP.

As an explanation for some of the changes between different stages of English, I have suggested: (a) that the tense features in finite clauses are reanalyzed from being in C to being in I and that as a result that comes to indicate Force, and (b) that the C of certain non-finite clauses comes to indicate future in Fin and that this can only be selected as complement to the verb if the CP is not split.

References


Notes
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I am assuming a topic is old information, and a focus is new, but not much hinges on this since there are very few sentences with both in the CP. See Rizzi (1997) for more.

Notice that, unlike topicalization, left dislocation is only possible in a main clause, as in (i), and not in a subordinate one, as in

Those books, I read them.
*I know that those books I read them.

Note that there are still dialects of English where that remains in this position and where sentences such as (10) occur, see Seppänen & Trotta (2000).

It contains four with frankly occurring after a relative that. I will not go into that here.

For instance, till dies out as a non-finite, and becomes reduced as a finite C; at and till are lost as infinitival markers.

The exception is the semi-auxiliary gan, as in (i). I will not go into that here:

Clerk’s Tale, l. 289
Gan hire for to calle.

As Fischer (1989) points out, the introduction of these constructions cannot be directly related to the demise of the subject to as in (57), since both occur in the same text.