How Comparatives Invert:
Toward a New Syntax with Some History

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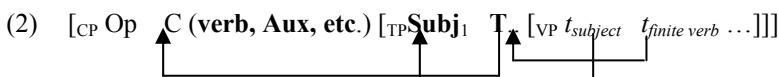### Universität Tübingen

1. Introduction[1]

The tension between the appealing power of standard V2 displacement implementations for subject-finite verb inversions and the underlyingly and empirically diverging variety of such inversion phenomena (e.g., even if – and, interestingly, in particular if – we restrict attention to English) is not a new one; see Culicover and Levine (2001) and Merchant (2003) for prominent synchronic studies, among many others. The goal of this paper, addressing specifically comparative inversion, is twofold - first, to show that, crucially taking into account the tools available from the historical perspective on the language (cf. Fischer et al. 2000; Kroch et al. 2000), a new syntax becomes available for comparative inversion. This gives a more accurate account of the data than the standardly assumed alternative (viz. of moving the finite verbal element to C). Second, by adapting a suggestion of Haeberli (2002), we will argue that, as far as syntax proper goes, an (archaic) option in the grammar that allows the subject to stay in a lower position than the standard Spec,TP (for simplicity, we call the position Spec,VP here) offers both a new window onto the syntax of the comparative construction itself and complements certain recently uncovered findings on V2 effects in the history of English in other domains (cf. Kroch 2007; Speyer, forth.). The paper has the following structure. After the essentials of the proposal, given in section 2, and the diachronic reasoning in section 3, we present quantitative evidence and theoretical arguments for the proposal in sections 4 and 5. Section 6 discusses additional synchronic issues.

2. The proposal in a nutshell

Comparative inversion (CI) is currently in general an optional, register-based phenomenon, cf. (1).

(1) a. Harvard undergrads, however, were unmoved. They generally give the impression of being far *more supportive of their president* than <u>is</u> **the faculty**. (*Weekly Standard*, 03/07/05).
     b. The Rochester scientists have now shown that parthenolide is in fact *more selective at stopping cancer through apoptosis* than <u>was</u> **the standard drug cytarabine**. (*Townsend Letter for Doctors and Patients*, July 2005)

A terminological note: since we will argue that the analysis that links CI to movement of the auxiliary to the C domain faces a number of inconsistencies, "inversion" in this paper is merely a descriptive term, viz. to refer to such sentences and in particular to the non-canonical surface word order in which a finite verbal/auxiliary element precedes the subject. The structure in (2) gives the traditional syntax of inversion for comparatives. This paper suggests (3) as the new CI analysis instead.

(2)   [CP Op   C (**verb, Aux, etc.**) [TP**Subj**₁   **T** [VP $t_{subject}$ $t_{finite\ verb}$ …]]]

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(3) $[_{CP}$ Op… C $[_{TP}$Subj$_1$/Ø **T (verb, Aux, etc**.).. $[_{VP}$ **Subj$_2$** $t_{finite\ verb}$ …]]]

Beyond the (independent) possibility of the verb moving to T in the derivation of both (2) and (3), there are clear differences between the two proposals. The optional movement of the auxiliary to C is only featured by the standard proposal, as is the obligatory subject in the higher position Spec,TP.

3. The syntax of CI on a diachronic basis

In this section, we introduce the data and the essential theoretical background from a diachronic perspective. Then we show the main result after the application of this background to the data at hand.

The databases for the current study were *The York-Toronto-Helsinki Parsed Corpus of Old English Prose* (Taylor et al. 2003), *The Penn-Helsinki Parsed Corpus of Middle English* (Kroch & Taylor 2000), and *The Penn-Helsinki Parsed Corpus of Early Modern English* (Kroch et al. 2004). These corpora have essential features for current purposes. The tokens selected from the corpora are, based on the annotation scheme, clausal comparatives and some related structures such as the so-called *swa*-clauses of Old English (OE). These include equative structures but are not restricted to them (cf. Mitchell 1985). We will use the term CCS (clausal comparative structure) below to refer to the relevant tokens at any given historical time at which we are interested in inversion. Since we are interested in phenomena only visible at the clausal level, we will not discuss the status of so-called phrasal comparatives (whether they should have a massive ellipsis or rather a direct analysis; cf. Heim 1985; Lechner 2004). It is also worth noting that in Middle English (ME), as in OE, the basic grammatical representation of comparative clauses was not different from that of Modern English in any crucial respect at the syntax-semantics interface; see Beck et al. (2004) and Snyder et al. (1995) for direct consequences of variation in the underlying representation of degree-based constructions. For the varieties of early English at stake here, there is evidence that the crucial tests for the representation of degree held at all major attested stages, essentially as in the modern varieties. For example, there is clear evidence of comparative morphemes (Ringe 2006) and measure phrases were available, cf. (4).[2]

(4)   ne   bið he lengra [ðonne **syfan elna lang**] (coorosiu,Or_1:1.15.2.248)
          NEG is he longer than   seven ell   long

Given that the (probably constant) semantic setting relating to the degree constructions in the CCS tokens did not seem to be a cause for distinct surface output, we next raise the question after the basic clausal syntactic essentials available diachronically. As research over the past two decades has revealed (cf. Fischer et al. 2000; van Kemenade 1987; Kroch et al. 2000; Pintzuk 1991; among others), OE and early ME show two major types of verb movement, which are characteristically distinct in their scope. One of them is the so-called operator movement. In this connection, it has been observed that certain contexts trigger unselective inversion of the finite element to C. A non-exhaustive selection of these contexts for OE is given in (5)-(7) below (cited from Kroch et al. 2000).

(5)   a. hwi sceole we oþres   mannes niman? (AELS 24.188)
          why should we another man's   take
      b. þa   ge-mette he sceadan (AELS 31.151)
          then met   he robbers
      c. ne mihton hi   nænigne fultum æt   him begitan (Bede 48.9–10)
          not could   they not-any   help   from him get

Thus, it is fair to say that in cases involving *wh*-questions, operators such as *þa*, and a few others, the verb moves to C. This type of movement is rather uncontroversially movement to a high position. In particular, the examples in (6) show that it can affect pronouns (just as it can affect full DPs, which are not shown here, given that the same behavior obtains for them in operator contexts). However, when we move on to an important class of Germanic V2 triggers, viz. topicalized structures, a crucial difference obtains in OE between subjects instantiated though pronouns vs. full DPs; cf. (6) vs. (7).

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[2] For a detailed discussion of more tests and methodological issues in the historical context, cf. Gergel (2007a,b).

(6) a. &   of heom twam is eall manncynn cumen (WHom 6.52)
         and of them two   is all   mankind   come
     b. þæt hus   hæfdon Romane to   dæm anum tacne   geworht (Or 59.3)
         that building had   Romans with the   one   feature constructed
     c. þær   wearþ se cyning Bagsecg ofslægen (Anglo-Saxon Chron., Parker, 871)
         there was   the king   Bagsecg slain

(7) a. Ælc yfel he mæg don (WHom, 4.62)
         each evil he can do
     b. scortlice ic hæbbe nu   gesæd ymb þa þrie dælas... (Or 9.18)
         briefly   I   have now spoken about the three parts
     c. æfter his gebede he ahof þæt cild up... (AEChom. 2.28)
         after his prayer he lifted the child up

While there is some variability in the literature on the implementation of the operator/non-operator contrasts, what's clear is that they were part and parcel of the grammar of earlier English (in particular OE and arguably some early ME dialects). Following, e.g., Kroch et al. (2000) and Pintzuk (1991), we take a straightforward implementation in this respect and translate the distinction structurally into movement to C vs. movement to T. Such diagnostics are crucial for teasing apart the various potential options in the grammar. Interestingly, they can be applied to comparative structures without further ado. That is, we will distinguish right away between movement to T vs. C. In a subsequent step, we will argue that while movement to the T domain is certainly a fact of the language in general (cf., e.g., Roberts 1993), it is not the key diachronic factor involved in the development of CI from OE to early Modern English (EModE). This leaves us with movement to T and a crucial role for low subjects.

First, consider the application of the crucial test for distinguishing movement to C vs. T in OE. We may note that pronouns productively appear in all CCS of OE only in what has been identified as the structurally higher position, as in (8). The configuration in (9) below is not attested in the OE database.

(8) And he þa leofode lange syððan, *halre* (coaelhom,+AHom_6:105.935)
     [þonne **he** ær   wæs,...
     than   he before was

(9) *? [THAN T SUBJ. PRONOUN(nominative)]

The verb thus does not move past subject pronouns in CCS. This syntactic behavior represents straightforward evidence and the OE situation serves as a rather clear clue. While additional factors may have played a role (pronouns being, e.g., typically clitic elements), the strong line of recent research mentioned above has shown a syntactic basis for the pronoun restriction. By capitalizing on this fact, we thus observe that the relevant evidence features no head movement to C in CI.[3]

If we combine the proposal of low subjects with the result just obtained, a further prediction relates to the syntax of OE pronouns more generally. It is known that, unlike Old High German, OE not only allowed subject pronouns, but also object pronouns to appear in the structurally high position. If the subject can remain *in situ* in CCS, we expect the subject and the pronominal object to surface in reversed positions from *First-Merge* relative to the finite verb. Relevant examples are given in the sentences in (10) through a (negated) equative and a (non-equative) comparative, respectively.

(10) a. Nis us nan lim swa gewylde to gehwilcum weorce
         [swa **us** syndon **ure fingras**] (coaelhom,+AHom_4:158.606)
         as   us are   our fingers
     b. Me wæs sio rod þinra synna **micele hefigra** …
         [þonne **me** wære **sio rod   þe** ...] (conicodD,Nic_[D]:114.107)
         than   me was   the cross that

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[3] For lack of space, I refer to Haeberli (2002), Fischer et al. (2000), and Kroch et al. (2000) for recent discussion of the development of the pronoun restriction.

An interesting further prediction is that the sentences surfacing without an overt subject should be attested in comparatives. This prediction is also borne out, cf. the ME example (11).[4] We return to this.

(11) For *trewer loue* was neuer bytwene two men [þen was bytwen þe kyng and Thomas], whyll hit last. (CMMIRK,39.1134)

4. Basic quantitative developments

The frequencies of inverting tokens in the total numbers of CCS for OE, ME, and EModE from the corpus estimates are listed in (12).

(12) CI with the subject in CCS (Overview)

OE:	223/5148	=	4.33%
ME:	135/1684	=	8.01%
EModE:	31/2539	=	1.22%

From the figures above, two basic observations emerge. First, the highest rates of CI obtained during ME. Second, EModE preserves CI only at an extremely low rate.

While the estimates need to be taken with some caution, there is indication that a simple, diachronically-preserving low subject-based approach fares better than syntactic alternatives, e.g. of the type that places weight on the developments of verb movement (cf. next section). Let's focus on the ruptures between ME/EModE and between OE/ME, respectively. As is well-known, the option of obligatory subject movement to Spec,TP (the "EPP feature") is a characteristic of Modern English. Thus it will come as no surprise to find that this is precisely the time at which the largest decrease is obtained in the rate of CI. The increase between OE and ME can be explained in terms of a structural inertia account of CI, such as the one proposed here in conjunction with standard assumptions about headedness change in the Infl-domain at the transition from OE to ME (cf. Pintzuk 1991; Biberauer et al. 2007; and Gergel 2007a for the details of how such developments fall into place with CI). The even more dramatic dip in the estimates following the ME period is straightforwardly explained by the erosion of the low-subject position towards ModE in general. We claim that the relic behavior is due to preserving the archaic possibility of a low subject under appropriate conditions. With respect to this conspicuous development, an interesting point arises. Since EModE also constitutes the time at which a number of other important changes occurred in the grammar of English, including the loss of verb movement in general but also various innovations, we discuss two alternative syntactic proposals next.

5. Two alternative syntactic scenarios (and their problems for CI)
5.1. The verb-movement relic scenario

Before introducing the scenarios in question, let's consider two interesting well-known diachronic case studies as an illustrative counterfoil, thus conjecturing our way from more intensively studied areas and comparing the situation with comparatives: first, the loss of verb movement and the rise of *do*-support (Kroch 1989; Roberts 1993; Warner 1997), and second, topicalization-triggered inversion (see, e.g., Kroch et al. 2000; Pintzuk 1991; Hegarty 2005; Speyer, forth.). Since the history of these two phenomena is interestingly intertwined with verb movement and parametric switches, it becomes possible to test whether the same mechanisms can explain the diachronic developments of CI.

For instance, it is known that verb movement is generally a receding option throughout the history of English (see, e.g., Kroch 1989 and Warner 1997 for a chronology of the essential syntactic developments in relationship to verb movement). If we attempt to speculate along the lines thoroughly researched for verb movement in general, a first option that comes to mind runs along the lines of (13).

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[4] The example features an existential; see Williams (2000) for discussion of null subjects independently of CI.

(13) Verb-movement relic scenario (VMRS)

"CIs in ModE are a relic of inversion in the following sense. Due to the loss of verb movement, CI was (significantly) more frequent for x_i than for x_{i+1}, where x_{i+1} is an appropriate time interval and x_i the relevant preceding time interval."

However, the tempting option of linking the fate of CI to verb movement seems to be ultimately misguided. First, note that, as far as the syntax goes, CI remains an optional process up to today. Optional verb movement, by contrast, is a possibility only arising during language change (cf. the well-noted possibilities of EModE, say in Shakespearean English). Moreover, in the well-documented cases (cf., in particular *do*-support; Kroch 1989), related effects of one and the same underlying grammatical process take place in much smaller time frames with the diachronically well-known Constant-Rate effect.

Attempting to give the VMRS a second chance, we can loosen it in some respects and test whether it holds under the modified conditions. For instance, it is clear that the relevant time intervals mentioned in (13) cannot be conceived of too narrowly, mainly for practical reasons – e.g., the classical arising problem of historical data plus also the possible extra-syntactic factors interfering with CI. However, at least a trend would be expected to be discernible if (13) were to hold. This is not the case either, as the data profile shows.

Since the numerical trend needed for the VMRS is not given, one can loosen the scenario in a different way and check whether the oscillations that are observable do not have an independent explanation. In particular, let's consider an amendment along the lines of (14).

(14) Proviso to the VMRS

Allow for possible inconsistencies to the VMRS as long as they are controlled for by the changes in the syntax of pronouns.

For instance, after the early ME period, an additional option for CI that might have been expected could have resulted from the changing syntax of pronouns. Pronouns start inverting in ME in previously non-operator contexts as well (cf. Kroch et al. 2000 on crucial dialectal differences). If the "temporary" (if still prolonged) increase in the rate of CI were explained by these developments, there might be a way to save the VMRS, in that inversion would generally be a decreasing tendency, with the largest divergence hypothetically explained on independent grounds. The VMRS remains, however, unsupported. First, the largest increase in CI frequencies can be observed right from the beginning of the first period of ME. Second, the (theoretical) option of inverting pronouns from earliest ME (i.e. M1) on is in fact not taken advantage of by CI. No inverting pronouns were found for this ME period.

Having shown that an operatorized version of verb movement is implausible at best, let us now turn to V-to-T. There are a number of issues in this context that need to be kept apart. First, previous research has shown that in the history of English, V-to-T is a precondition for V-to-C. It is also the case that V-to-T as a mechanism is made use of independently in any account of CI to some extent. However, the argument here is that the loss of this process (with the possible exception of auxiliaries like *be* which we discuss below) fails as a diachronic explanation. In particular, we cannot confirm the one-way implication stated in (15).

(15) Receding V-to-T => Receding CI rates

We argue against (15). In this connection, we offer an argument by investigating the situation of the copula in the relevant contexts. Naturally, a large ratio of CCSs contains a finite copula at all times. To see the copula problem, let's first consider the rates of inversion in CCSs given in (16).

(16) Rates of CI in CCSs with the copula (OE-EModE)

OE:	69/1289	=	5.35%
ME:	80/539	=	14.84%
EModE:	18/656	=	2.74%

Two immediately emerging observations relate to the fact that while the frequencies are higher compared to the overall CI rates, the trends are the same, in fact even more dramatically visible: there is a large increase after the OE period and a strong decrease from ME to EModE. Further, it is easy to show based on the standard syntactic diagnostics (e.g., Emonds 1970; Pollock 1989) that unlike most verbs, the copula has retained the property of moving to T in modern grammars. This is precisely the paradox. If movement to T were the culprit, we would certainly not expect the decline from ME to EModE in a sub-study that contains an item that did not lose the displacement property to T. Thus far, we can draw the conclusion that the originally perhaps appealing VMRS is an unlikely scenario at best in explaining CI and its syntactic history.

5.2. The inverse-inversion (or innovation) scenario

For completeness of the syntactic-diachronic argumentation, we consider a different possibility for what could have been the diachronic development of CI. Instead of attempting to view CI as a receding property influenced by what we know about verb movement in general, one could, a priori, reverse this perspective, i.e. conjecture an innovation scenario (instead of a loss scenario), as in (17).

(17) *Inverse-inversion* scenario for CI (II)
"CI is largely a new development and as such on a trend contrary to other types of inversion in the history of English in the sense that it increases from x_i to x_{i+1} (where x_i to x_{i+1} are appropriate intervals, cf. (13))."

While we might have a first bias against the *II*, e.g., mainly from the quantitative evidence already presented above, we might nonetheless consider the possibility that it might have seemed not entirely unimaginable *per se*. For instance, the inversion triggered by a negative preposed constituent became obligatory in the course of the history of English, i.e. a formerly non-operator context became one in later usage. Further, it is also easy to see that if one thinks back to the original comparisons of OE with the West Germanic languages, a further difference adding up to the already uncovered ones over the last two decades between, say, OE and German concerns the impossibility of CI in the latter. Like any non-root clause, a clausal comparative in German needs to have the finite verb in final position.

Even if one might have speculated that CI is an innovation further setting English apart from its Germanic sisters, on closer inspection the *II* reveals itself as hard to maintain for the data at hand. Grammatically, it would require an explanation in the first place. Moreover, it can be argued against both qualitatively and quantitatively by observing that CI was already available in OE in sufficient attested instances. Thus, for the diachronic developments since the oldest widely attested stages of the language with which we are concerned here, one cannot justify an innovation construction.[5]

A last way to possibly amend the *II* (in spirit) would be to say that different types of inversion were available in OE and that an innovation occurred via (generalized or "operatorized") V-to-C only later during ME. While theoretically perhaps not very appealing, such a way out would also face the empirical problem given by the lack of a productive number of inverting pronoun cases throughout ME. Last but not least, the stark numerical decline of CI towards ModE would also be unexplained. Essentially, this argues against any version of an innovation scenario for ModE.

All in all, we have thus argued that neither version of a verb-movement scenario (whether with main weight on V-to-C or on V-to-T), nor an innovation scenario can account for CI. Instead, the low-subject position relic scenario seems at present a superior alternative that fits in with the general and independent developments of the language without further stipulation. Interestingly, the diachronic reasoning has also offered a new window into the nature of CI syntax in modern English. Instead of

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[5] An innovation might, of course, nonetheless be an interesting object of investigation for earlier stages, i.e. for the transition towards OE. A first observation would be that *Beowulf*, a text on which both the philological and the grammatical work has converged in classifying it as a reflection from an archaic version of OE (cf. in particular Pintzuk and Kroch 1989), which already contained CI. Following Pintzuk and Kroch's observations on the syntax of *Beowulf* and what we have said about CI, one could next conduct a closer comparison to try to place CI into perspective within OE and with respect to the ancestor grammars. At this juncture, I leave this topic for future research. What this point might also illustrate is that the actuation problem (Kroch 2001; Weinreich et al. 1968) appears even more elusive in this case than it already does in the best-studied cases of the English language.

being a relic of verb movement, the possibility of CI is an archaic feature of the language allowing it to keep a subject low (or, perhaps equivalently, to allow null expletives in the higher, standard subject position of modern grammars).

6. Additional evidence from issues in ModE

While the thrust of this paper is diachronic, we started out with synchronic examples and claimed that crucial facts can be learned from the diachronic developments. In this final section, we return to the synchronic situation, show that the archaic feature of leaving the subject in-situ in CCS that we invoked can still be observed in certain contexts in ModE, and suggest some beneficial extensions.

As already mentioned, low subjects have been associated with the possibility of leaving the standard subject position empty. We can show that this further prediction is also fulfilled. While we already know that the property held at earlier stages of the language (OE and ME[6]), EModE comparatives of the type illustrated in (18) make the perhaps yet less-known point here.

(18) he left soch a companie of fellowes and scholers in S. Iohnes Colledge, as _ can scarse be found now in some whole vniuersitie (ASCH-E1-H,55R.164)

Let's note that in ModE (including current varieties) the lack of expletives is also possible in some contexts, and sometimes even favored by some speakers, cf. (19).

(19) a. [T]he negotiating process is far more complex than _ is often assumed.
(*Refugee Survey Quarterly*, Vol. 18, No. 3, 1999, p. 43)
b. "What this reflects is the fact that our entire industry is able to move in a *much more quick and sophisticated way* today than _ was the case two years ago," Smith said, referring to the damage wrought in August 2003 by the "Blaster" worm… (*Washington Post*, 08/26/05)

Let's also note that the phenomenon is not restricted to sentences containing the copula, but can be observed at least with some further (presumably unaccusative) structures as well, cf. (20).

(20) a. By arranging to protect and feed the young of shellfish, for example, the commercial breeder can cut the normally high mortality rate quite dramatically and raise more juveniles to become adults than could ever occur in nature. (BNC)
b. The overwhelming dominance of the urban areas in particular, the metropolitan regions around Tokyo, Osaka and Nagoya in most areas of national life is having a far more devastating effect on village life than might stem just from better employment opportunities. (BNC: *The Emergence of Modern Japan*. Longman, New York, 1992)

Further, we can mention that there are also contexts such as subjectless counterfactuals in which the subject typically appears to be deleted, cf. (21).

(21) The crisis was averted, and fewer people died than might have.

We observe that change to another noun (if absence is to be counter-argued to be due to lack of contrast[7]) does not seem to induce grammaticality, cf. (22).

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[6] Earlier English also had additional possibilities in null (and overt) expletive constructions compared to ModE, which go beyond present scope (cf., e.g., Fischer et al. 2000; Haeberli 2002; Jonas 2006 for discussions).

[7] Although this may seem a moot point, it is a preliminary safeguard step in the present context (cf. also Gergel 2007b). As is well-known, most ellipsis processes are indeed not obligatory. While we will not discuss the scope and exact predictions here, Fox and Lasnik (2003), Merchant (2003), Reglero (2007), and others have, however, pointed out the force of ellipsis arguments on the acceptability of various syntactic structures including some classes of comparatives. In this connection, let's note, more generally, that we certainly do not argue that subjects are generally absent or low, but only a marginal possibility among comparatives constrained by syntactic and extra-syntactic factors. If the main argument of this paper is correct, the possibility of availing oneself of this archaic property may have some positive predictions in a historically consistent view on the phenomenon.

(22) a. *The crisis was averted and fewer soldiers died than might civilians have died.
    b. *The crisis was averted and fewer soldiers died than civilians might have died.

As a final rubric, let us give an outlook on CI and some issues that remain outside the narrow scope of this paper. One of them is the issue of ellipsis. The issue is discussed, for example, in Merchant (2003) and Gergel, Gengel, and Winkler (2007).[8] The precise types of ellipsis involved may also need closer scrutiny (cf. Heim 1985; Lechner 2004; among others, for pertinent ellipsis classifications).

Further, since we focused on the mechanism in syntax proper that not only accounts for the synchronic representation of CI but also for its diachronic development, it is possible that interesting interface issues may complement the proposal made here. To take a particular example, consider the possible interfering role of rightward movement. With Göbbel (2007) and the references cited there, we may assume here that rightward movement is a PF phenomenon and should not necessarily be enforced in syntax. There is one particularly interesting case in which this may play a role. Consider multiple auxiliaries in comparative structures,[9] cf. (23).

(23) It is no more expensive than would be the system you are proposing. (Huddleston & Pullum 2002)

The apparent clustering of the auxiliaries is additional indication that the PF component may be involved at least in a subset of the relevant cases.[10] While the interface to the semantic component has been cursorily mentioned above in connection with degree constructions, there is yet another aspect that merits attention, namely the question of to what extent the notion of contrast ties in with CI. Finally, we propose the following link for further research: viz. that insight on low peripheral positions (cf., e.g., Drubig 2003; López & Winkler 2003) may fruitfully relate to the structurally low nature of the subject that we have advocated (notably, with easily imaginable extensions, essentially still within the vP domain).

To conclude, the paper has argued that CI is simpler than posited by the standard syntactic account, in that no movement of the subject to Spec,TP should be stipulated. It has hopefully been shown that the historical developments in conjunction with the insight gained in diachronic syntax over the last two decades have proved not only an interesting testing ground, but in fact a crucial tool for understanding the nature of a given syntactic phenomenon such as CI and its apparent quirky behavior.

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[8] The mechanics of those accounts assuming the standard syntax would need to be amended if the present approach is correct. I remain agnostic here about whether the mechanics of ellipsis *per se* should be treated as syntactic or information-structural. It seems indeed that posing the question disjunctively may also be inappropriate, since clearly both syntax and various interface aspects interact; see, in particular, Winkler (2005) for recent discussion.

[9] I first became aware of such examples through Huddleston and Pullum (2002) (as a WCCFL reviewer points out, they are also noted elsewhere in the literature). I also thank Peter Culicover (p.c.) in this connection for subsequently demonstrating the power of Google in producing a list of interesting and systematic examples of this sort and for sending me such a list.

[10] I use terms such as "subset" and remain hesitant for two reasons. First, I have encountered diachronic data that make the impact of extraposition less likely as a general recipe. Second, following, for example, an idea of Johnson (1991), there is a straightforward syntactic solution even for the seemingly most reliable cases of extraposition, such as the ones given above. I thank Sigrid Beck for bringing up this point. For space reasons, I need to refer to Gergel (2007b) for more details including diachronic discussion on these matters.

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