Comparative correlatives and successive cyclicity

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1 Introduction: The problem

Comparative correlatives (see (1) for simple illustrations from English and Dutch) are members of the family of correlative constructions, as argued in detail in Den Dikken (2005a) on the basis of an analysis of data from a variety of languages.

(1) a. the more you read, the less you understand
b. {hoe/ des te} meer je leest, {hoe/ des te} minder je begrijpt (Dutch)
how/the-GEN DEG more you read how/the-GEN DEG less you understand
'the more you read, the less you understand'

Srivastav (1991) has presented seminal evidence for an analysis of correlative constructions wherein the initial clause functions as a (free) relative clause adjoined to a headclause containing a correlative particle:[1]

(2) a. *standard correlative* (Srivastav 1991)
$[_{\text{HEADCL}}\ [_{\text{RELCL}}$ REL/WH-operator ...] $[_{\text{HEADCL}}$ CORREL-PRT ...]]
b. *comparative correlative* (Den Dikken 2005a)
$[_{\text{HEADCL}}\ [_{\text{RELCL}}$ REL/WH-operator+CPR[2] ...] $[_{\text{HEADCL}}$ CORREL-PRT+CPR ...]]

For the examples in (1), this entails that the initial clause is an adjoined (free) relative clause, with *hoe* or *des* (the latter being an archaic genitive case form of the definite article/demonstrative) in Dutch (1b) serving as a relative pronoun, and that the second clause is the headclause, with *hoe* or *des* being the correlative particle. Though in the English example in (1a), neither the relative pronoun nor the correlative particle is overt (English *the* in (1a) is the equivalent of Dutch *te* in (1b), a syncategorematic degree particle; see Den Dikken 2005a for discussion), there is support for a correlative structure here as well. Thus, it is easy to show that the clause-initial comparatives in both constituent clauses of comparative correlative constructions end up in clause-initial position as a result of syntactic movement, exactly as in correlative constructions generally: the fronting of the comparatives is subject to locality conditions familiar from the domain of A′–movement (see esp. Culicover & Jackendoff 1999:555–56; Taylor 2006):

(2) the more she {believes/*regrets} (*the claim) that you read,
the less she {believes/*regrets} (*the claim) that you understand
(3) what she {believes/*regrets} (*the claim) that you read

In both the sentence-initial clause and the headclause of the comparative correlative, attempts at establishing a dependency involving the initial comparative across a non-bridge verb complement or a complex noun phrase fail completely, just as in the case of garden-variety A′–movement dependencies such as the one in (3), involving either free relativisation (as in *what she believes that you read is disgusting/interesting/well-written*) or embedded *wh*-question formation (*what she believes that you read is unclear/uncertain/unknown*).

1 Bhatt (2003) argues cogently that simple correlatives involve a derivation in which the relative clause, which forms a constituent with the projection of the correlative particle in the base, ends up in its suface clause-initial adjunction position via movement. For comparative correlatives (at least in Dutch) Bhatt's arguments cannot be reproduced. I will assume base-adjunction for simplicity.

2 Here and throughout the paper, 'CPR' stands for 'comparative'.

For English, it is not very difficult to find 'real-life' cases of long-distance fronting in non-island contexts in comparative correlatives, in either the first or the second clause. Here are some Googled examples, all with *think* in the matrix of the long-distance dependency:

(4) *long-distance dependency in the relative clause*

a. the less you think that you know, the better you can receive, the more enthusiastic you can be about what you don't know
[www.redbullmusicacademy.com/ TUTORS.9.0.html?act_session=84]

b. the more you think that they intended to bag, the more hubristic seems their undertaking
[www.austlii.edu.au/au/journals/MULR/1999/1.html]

c. the more people you think you've "loved," the greater the likelihood that ...
[decime.blogspot.com/2006_02_12_decime_archive.html]

(5) *long-distance dependency in the headclause*

a. the more you learn about something, the less you think that you know
[www.nsftools.com/blog/blog-05-2003.htm]

b. the more things you do the more things you think you can do
[www.insearchofheroes.com/internet-heroes/pages/craig%20garber%20hero.html]

c. the more you get done, the more you think that you gotta get done
[www.lostinbrooklyn.com/work/writing/smugwriting02.html]

It seems clear, therefore, that English readily allows long-distance dependencies involving the comparative in these constructions, in either of the constituent clauses. But for Dutch, the picture is less straightforward. The two sentences in (6), translation equivalents taken from a website containing sermons in a variety of languages, suggest that some English long-distance dependencies have grammatical counterparts in Dutch.

(6) a. the more you think you could do, the more you employ your gifts to the very limit
[www.tscpulpitseries.org/english/undated/tsfaith.html]

b. hoe meer je denkt dat je kunt doen, hoe meer je je gaven tot het uiterste benut
how more you think that you can do how more you your gifts to the extreme employ
[www.tscpulpitseries.org/nederlands/gf000004.htm]

The Dutch example in (6b) involves a long-distance dependency across a finite clause inside the relative clause of the comparative correlative. Such dependencies are accepted by the vast majority of the informants in a questionnaire study I conducted for this paper on long-distance dependencies in Dutch comparative correlatives (see the appendix for discussion of the questionnaire): my test example in (7) (sentence (11) of the questionnaire) was found to be acceptable by all but one of the respondents.

(7) hoe meer je denkt dat je begrijpt, hoe minder je in feite begrijpt
how more you think that you understand how less you in fact understand
'the more you think you understand, the less you actually understand'

However, examples of long-distance dependencies in the headclause of the Dutch comparative correlative are very difficult to find. The attested example in (8), featuring extraction of *hoe minder* out of the *infinitival* complement of *denkt* 'think-2SG' in the headclause, is grammatical; a structurally parallel constructed example that I included in my questionnaire (see (9a) = (41) in the questionnaire) was almost universally accepted by the speakers that I queried.[3]

3 In my questionnaire, I chose an example not containing the negatively polar auxiliary *hoeven* found in (7a), whose licensing by the fronted negative comparative *minder* 'less' introduces additional complications blurring the picture.

(8) hoe meer je leert, hoe minder je denkt te hoeven leren
how more you learn how less you think to need learn
[www.wijnstokgemeente.nl/wordfortoday0444.pdf]

(9) a. hoe meer je leest, hoe minder je denkt te begrijpen
how more you read how less you think to understand

b. %hoe meer je leest, hoe minder je denkt dat je begrijpt
how more you read how less you think that you understand

c. %hoe meer je leest, des te minder je denkt dat je begrijpt
how more you read the-GEN DEG less you think that you understand

But speakers are considerably less unanimous when it comes to sentences of the type in (9b) (= (21) in the questionnaire), involving extraction across the *finite* complement of *denkt* in the headclause. About one third of my informants found (9b) to be degraded in comparison with the corresponding example not involving a long-distance dependency in the headclause; and I have not found any examples of this type on the web either. The sentence in (9c) (= (23) in the questionnaire), with *des te*+CPR in the headclause, triggered an even higher proportion of negative responses from my informants.

From the brief discussion of the Dutch data in the preceding paragraphs, it already emerges that there are several factors at play when it comes to the (im)possibility of long-distance dependencies in Dutch comparative correlatives. I have summed them up in (10).

(10) *factors influencing the (un)grammaticality of long-distance dependencies in Dutch CCs*

a. the relative clause *vs* headclause distinction
→ for most speakers, long-distance dependencies are easier in the relative clause than they are in the headclause

b. the finite/non-finite distinction
→ for most speakers, long-distance dependencies are easier across infinitival clause boundaries than they are across finite clause boundaries

c. the choice of (cor)relative particle — *hoe* [+WH] versus *des* [–WH]
→ for some speakers, long-distance dependencies (esp. in the headclause) are easier with *hoe*+CPR than they are with *des te*+CPR

d. the word order of the headclause (with *des te*+CPR)
→ for some speakers, long-distance dependencies in the headclause (and to some extent also in the relative clause) are easier when *des te*+CPR in the headclause is not directly followed by the subject but instead is separated from it by either the raised finite verb (in a Verb Second construction) or a complementiser

Three of these factors we have already seen at work. (10a) is reflected by the contrast between (7) (which is virtually unanimously accepted) and (9b,c), which receive much less favourable responses. The role of finiteness, (10b), is shown by the contrast between (9a) and (9b,c). And the choice of correlative particle is responsible for the fact that (9c) is rejected by more speakers than (9b) is. So far, however, I have not presented the facts in a particularly systematic fashion, and I have not even begun to touch upon factor (10d). Both (10c) and (10d) present complications that are peculiar to Dutch comparative correlatives — whereas English does not exhibit any kind of variation in these domains, the empirical picture in Dutch is complicated, due to the fact that Dutch comparative correlatives exhibit quite a broad palette of possibilities in these areas: (1b) (repeated below) is in fact a simplification of the empirical lie of the land, laid out more fully in (11).

(1b) {hoe/ des te} meer je leest, {hoe/ des te} minder je begrijpt
how/the-GEN DEG more you read how/the-GEN DEG less you understand
'the more you read, the less you understand'

(11) a. hoe meer je leest, hoe minder {(dat) je begrijpt/??begrijp je}
b. hoe meer je leest, des te minder {(dat) je begrijpt/begrijp je}
c. %des te meer je leest, des te minder {(dat) je begrijpt/begrijp je}
d. *des te meer je leest, hoe minder {(dat) je begrijpt/begrijp je}

In light of the fact that standard Dutch has two particles, *hoe* [+WH] and *des* [–WH], available for use in its comparative correlatives, there are four logically possible options.[4] In its brief discussion of comparative correlatives, the *Algemene Nederlandse Spraakkunst* 'General Dutch Grammar' (the standard reference grammar of Dutch) only mentions the *hoe ... hoe* (11a) and *hoe ... des te* (11b) patterns; *des te ... des te* (11c) is not brought up at all. This is definitely an oversight on the part of the *ANS*: though certainly the least popular of the three grammatical patterns, comparative correlatives with *des te*+CPR in the relative clause are quite common and by no means impossible. As far as I am aware, however, the fourth logically possible pattern, *des te ... hoe* (11d), genuinely does not occur: *hoe* can be used as the correlative particle in the headclause only if *hoe* is also chosen as the operator in the relative clause, not otherwise (that is, *hoe ... hoe* is good but **des te ... hoe* is not). This suggests that the basic correlative particle in the headclause is *des*, a determiner/demonstrative, in line with what the correlative analysis leads one to expect; the use of the *wh*-element *hoe* as a correlative particle is licensed only under 'harmony' with the relative clause, i.e., if *hoe* is also chosen as the relative operator. The restrictions on *des te ... des te* (which only about half of my informants accept readily) remain poorly understood at this time, both descriptively (what determines the amount of speaker variation found here?) and analytically; I will leave this issue aside completely in this paper, treating (11c) as a grammatical subspecies of the Dutch comparative correlative throughout.

Within the three attested patterns in (11a–c), there is speaker variation concerning factor (10d) outside the realm of locality issues as well, even in simple comparative correlatives of the type in (11): a few speakers find subject–finite verb inversion (V2) in the headclause of comparative correlatives with *des te*+CPR degraded;[5] and some do not (readily) accept insertion of a complementiser (*dat* in (11)) following the comparative in the headclause.[6]

4 Jack Hoeksema (p.c.) has pointed out to me that in his variety of Dutch, there are two further possibilities, illustrated in (ia,b). Note that these show the same alternation as (11a,b), with a *wh*-element (*hoeveel* 'how much') in the relative clause and either a *wh*-element or a determiner/demonstrative (*des*, just as in (11b,c)) in the headclause. I would expect them to pattern like (11a,b), but I have not investigated this in any detail.

(i) a. hoeveel te meer je leest, hoeveel te minder je begrijpt
how-much DEG more you read how-much DEG less you understand
a. hoeveel te meer je leest, des te minder je begrijpt
how-much DEG more you read the-GEN DEG less you understand

5 According to the *Algemene Nederlandse Spraakkunst*, however, inversion after *des te*+CPR is the preferred pattern — a claim with which I personally concur. The *Algemene Nederlandse Spraakkunst* also points out that inversion following *hoe*+CPR in the headclause, while not the preferred word order, is 'not excluded'. In two earlier papers of mine on comparative correlatives (Den Dikken 2005a,b), I reported that inversion following *hoe*+CPR is impossible, a claim which, in light of the *ANS*'s assertion, I now have to slightly adjust. But I should add that none of the many examples of comparative correlatives with *hoe*+CPR that I found on the web (using Google) involved inversion, whereas many of the headclauses containing clause-initial *des te*+CPR featured the finite verb in a position immediately following the comparative. (I did not include inversion in headclauses with *hoe*+CPR in my questionnaire because I had assumed that it does not occur; I did not want to lengthen the already quite substantial questionnaire even further.) The least we can say, it seems to me, is that, even if apparently 'not excluded', inversion after *hoe*+CPR is much less common than inversion after *des te*+CPR; the latter oscillates relatively freely between inversion and non-inversion, depending to some extent on whether the relative clause features *des te*+CPR or *hoe*+CPR.

6 I only included *dat* 'that' in my questionnaire, but one of my respondents pointed out a preference for *of* 'if' instead of *dat*. I did indeed find several examples of *hoe meer of* 'how more if' on the web; but *des te meer of* is not attested — something to which I will return. Complementiser insertion between the clause-initial comparative and the subject is possible in principle in both constituent clauses of the comparative correlative (though in my questionnaire I only included examples featuring a complementiser in the headclause) — but not if the relative pronoun is *des* (see Den Dikken 2005b). An interesting example is (i), a rhyming proverb:

All these points of speaker variation add to the impression that comparative correlatives are chaotic — which might play right into the hands of those who believe that comparative correlatives are not to be analysed in terms of principles of Universal Grammar. But as I will show in this paper, there is genuine order beneath the surface appearance of chaos — especially when it comes to the distribution of long-distance extraction in comparative correlatives, which is the topic of this paper.

The most robust effect on long-distance dependencies found among speakers of Dutch is (10a), the relative clause *vs* headclause distinction. Almost all of the speakers I checked with find no difference between short and long extraction in the *relative* clause; but more than one third of my informants report an effect of distance in the headclause, varying in strength from speaker to speaker and, for a subset of speakers, also depending on the other factors listed in (10) (see (10b–d): finiteness, choice of particle, and word order). I myself am a speaker for whom all of the factors in (10) play a role (in ways that will be spelled out in detail later in this paper); and I have found one other speaker who is sensitive to all four factors as well, showing a pattern of judgements that is virtually identical to mine. A number of other speakers report a sensitivity to factor (10a), either with or without concomitant activation of factor (10b) (finiteness). One speaker finds *all* long-distance extraction degraded, regardless of any of the factors in (10). And finally, several speakers (about half of my group of informants, but showing quite significant individual variation in more microscopic judgement patterns; only one speaker accepted all fifty of my stimuli) show no special sensitivity to long-distance extraction in comparative correlatives: that is, for them the long-distance extraction cases are systematically as good or as bad as the corresponding short extraction sentences. In this paper, I will concentrate on those speakers for whom long-distance dependencies in comparative correlatives are impacted by the factors in (10) — though of course I will also address the question of why not all speakers are sensitive to them.

Theoretically, the influence of the relative/headclause distinction (10a), finiteness (10b), the choice of particle (10c), and the word order in the headclause (10d) on the grammaticality of long-distance dependencies in comparative correlatives is of great interest. That the success of such dependencies is dependent on which of the two constituent clauses they are located in supports the conclusion (drawn independently in Den Dikken 2005a) that the two clauses have a different function — I will show that the almost complete absence of a locality effect in the initial clause is directly predicted by the fact that this clause is a relative clause, with the comparative generally fronted to SpecCP via an A′–movement operation that can readily proceed successive-cyclically through intermediate SpecCP positions; and the emergence of locality effects in some subspecies of the second clause can be made to follow from an analysis according to which fronting of the comparative targets an IP–adjoined position in the relevant cases. Sensitivity to finiteness (10b), which I will translate structurally in terms of the presence or absence of a CP in the matrix verb's complement, strongly confirms that the comparative ends up in clause-initial position via A′–movement. The choice of correlative

(i) hoe langer of men slaapt,
how longer if one sleeps
hoe korter dat men leeft;
how shorter that one lives
hoe wijder of men gaapt,
how wider if one yawns
hoe minder dat men heeft
how less that one has
[www.dbnl.org/tekst/heij007alki01/heij007alki01_0173.htm]

Here, systematically, *of* is used in the relative clause and *dat* in the headclause, which shows that, in the variety of Dutch that (i) represents, there is a formal means of differentiating the two constituent clauses of the comparative correlative even when the (cor)relative particles used in the two clauses are identical: *of* 'if' marks the relative clause ([+WH]), and *dat* 'that' marks the headclause ([–WH]), in a way that is perfectly compatible with the correlative analysis of the construction.

In light of the fact that combinations of *of* and *dat*, in that order, are generally found following *wh*-phrases in the spoken vernacular (cf. e.g. *ik weet niet wie of dat Marie gekust heeft* 'I know not who if that Marie kissed has'), one would expect such combinations to be possible in comparative correlatives as well, with *hoe*+CPR — and indeed, *hoe meer of dat* S strikes speakers as grammatical in spoken colloquial Dutch (see also Coppen 1997).

particle (10c) will turn out to translate structurally into a choice of substitution for SpecCP or adjunction to IP in the headclause — something which in turn influences the grammaticality of long-distance dependencies. And finally, the question of whether the fronted comparative in the headclause is directly followed by the subject (in a V3 surface pattern: [CORREL+CPR] – SUBJECT – VFIN) or is instead followed by an element occupying the C–head of the headclause (a complementiser or a raised finite verb, the latter yielding a V2 pattern in the matrix: [CORREL+CPR] – VFIN – SUBJECT) once again crucially implicates the role of CP in the construction of long-distance dependencies: whenever there is direct evidence (from complementisers or finite verbs surfacing to the immediate right of the fronted comparative) that the comparative has raised into the SpecCP position of the headclause, long-distance dependencies succeed; but in the absence of such direct evidence for movement to SpecCP (i.e., in surface V3 patterns in the headclause), some language users may, to some extent depending on the choice of correlative particle, instead have the fronted comparative land in an IP–adjoined position. Throughout, we find that, whenever the comparative lands in SpecCP (which it always does in the relative clause, but not necessarily in the matrix), long-distance dependencies are grammatical, via successive-cyclic movement through intermediate SpecCP positions; but when the comparative lands in an IP–adjoined position, severe locality restrictions emerge. This is revealing when it comes to our understanding of what constrains long-distance dependencies in the syntax. So besides giving us detailed insight into the inner workings of the comparative correlative construction, the discussion in this paper will also inform the syntax of locality.

The paper is organised as follows. In section 2, I will start out by looking at the gross structure of the comparative correlative in Dutch, paving the way for a detailed discussion of the locality effects and the factors impacting them in section 3. In section 4, I subsequently return to the theoretical question of how to analyse long-distance dependencies in current syntactic theory, addressing in particular the question of under which circumstances successive-cyclic extraction via an embedded SpecCP position is forced. Section 5 provides an overview of the main findings, and some general concluding remarks. And the appendix lays out the details of the questionnaire study that underlies most of the empirical discussion in this paper.

2 The macrostructure of Dutch comparative correlatives

Let me begin by revisiting the macrosyntactic structure of comparative correlatives universally — the structure in (2b), repeated here for convenience.

(2b) *comparative correlative* (Den Dikken 2005a)
[$_{\text{MATRIXCL}}$ [$_{\text{RELCL}}$ REL/WH-operator+CPR ...] [$_{\text{MATRIXCL}}$ CORREL-PRT+CPR ...]]

This structure leaves many detailed questions about the syntax of comparative correlatives unanswered, including the important questions in (12):

(12) a. what is the categorial status of the headclause?
b. what is the structural relationship between the headclause and the relative clause?
c. what is the landing-site of the fronted constituent [(COR)REL+CPR] in each of the two clauses?

I will assume as a given that the relative clause in (2b) is a CP — a standard and generally uncontroversial assumption which, as we will see, actually receives empirical support from the Dutch facts under discussion in this paper. It is likely that the landing-site of the fronted comparative in the relative clause will be its SpecCP position — again this is a point that requires little discussion, and we will find it confirmed below. But the categorial status of the headclause is far from self-evident, nor is the relationship between it and the relative clause or the landing-site of the fronted comparative in the matrix. The Dutch facts that this paper focuses on allow us to get a clearer picture of these complex questions.

As far as (12a) is concerned, it seems beyond question that the headclause can itself be as large as a full-fledged CP: as we have seen already (recall (11)), the headclause can contain a complementiser or may exhibit a Verb Second word order, with the finite verb fronted to C.[7] But what are we to do with (13)?

(13) a. hoe meer je leest, hoe minder je begrijpt
b. hoe meer je leest, des te minder je begrijpt
c. %des te meer je leest, des te minder je begrijpt
REL DEG more you read CORREL DEG less you understand

These sentences feature the verb-final versions of the headclauses in (11). Apart from the question of how to analyse the position of the relative clause such that it never counts for the computation of Verb Second (a question I will return to presently), the question these sentences pose is the following: How can the headclause of a root comparative correlative fail to exhibit any activity on the part of the C–head? This question is particularly interesting because outside the realm of (comparative) correlative constructions,[8] Dutch never features root clauses whose C–head position is radically empty, as it seems to be in (13) (after all, neither a lexical complementiser nor a fronted finite verb appears to the immediate right of the fronted comparative here).

Suppose that the correlative particle (pied-piping the comparative), unlike topics, *wh*-constituents and other fronted material, has no designated landing-site at the left edge of the clause, and that its only requirement is that, when it fronts, it must end up adjacent to the relative clause. Let us take this to be a hallmark of correlative constructions in general (cf. also Bhatt & Pancheva 2006, (78), on the position of *if*-clauses *vis-à-vis* the correlative particle *then* in conditionals), and take (14) as our first step towards an understanding of the (non-)inversion facts:

7 The V2 pattern, with the finite verb fronted to C in the headclause, is of course readily expected in light of the fact that Dutch is a V2 language. But the fact that the headclause, when serving as the root clause, can have a lexical complementiser in its C–head raises an immediate question, given that root clauses with complementisers as their heads are not particularly common — in Dutch they are normally confined in their distribution to exclamatives (*dat je dat durft, zeg!* 'boy, that you dare to do that!') or wishes (*dat je er nog lang van moge genieten* 'may you enjoy it for years to come'); but a root comparative correlative with a lexical complementiser in the headclause does not have the interpretation of an exclamative or a wish at all: it is illocutionarily on a par with comparative correlatives with a V2 or *dat*-less headclause. I will set aside the question of what to do with the lexical complementiser introducing the headclause of comparative correlatives. See Den Dikken (2005b) for some relevant discussion, to which I would like to add here that one of the respondents to my questionnaire pointed out that *dat* in the headclause is better if *dat* is also included in the relative clause. This enhances Den Dikken's (2005b) conclusion that the occurrence of *dat* in the headclause is a 'harmony' effect, with the headclause mimicking the structure of the relative clause. How to formally analyse this effect remains an open question.

8 I placed 'comparative' in parentheses here because, as Den Dikken (2005b) points out, archaic non-comparative correlatives (preserved in contemporary Dutch in the form of proverbs) show the same peculiar word order. The examples in (ia–d) are cases in point; (id′), with its V2 order in the headclause, is grammatical but only has a literal interpretation.

(i) a. wat niet weet, †dat/wat niet deert (proverb)
what not knows D-WORD/what not harms
'what the eye doesn't see, the heart doesn't grieve about'
b. wie dan leeft, †die/wie dan zorgt (proverb)
who then lives D-WORD/who then cares
'we'll cross that bridge when we get to it'
c. wie niet waagt, †die/wie niet wint (proverb)
who not tries D-WORD/who not wins
'nothing ventured, nothing gained'
d. wie het eerst komt, †die/wie het eerst maalt (proverb)
who the first comes D-WORD/who the first grinds
'first come, first served'
d′. wie het eerst komt, die maalt het eerst (literal)
who the first comes D-WORD grinds the first
'who comes first gets the first shot at grinding'

(14) the fronted correlative particle and the sentence-initial relative clause must be adjacent

The correlative particle can satisfy this requirement by raising to SpecCP, in which case [CORREL+CPR] is followed by a C–head lexicalisable either by a raised finite verb or by the complementiser *dat* (as in (15a)).

(15) a. $[_{CP}\ [_{RELCL}\ [REL+CPR]_i \ldots t_i \ldots]\ [_{CP=HEADCL}\ [CORREL+CPR]_j\ [_{C'}\ C=\{V_{fin}, \textit{dat}\}\ [_{IP}\ S \ldots t_j \ldots]]]]$

b. $[_{CP}\ [_{RELCL}\ [REL+CPR]_i \ldots t_i \ldots]\ [_{CP=HEADCL}\ C=\varnothing\ [_{IP}\ [CORREL+CPR]_j\ [_{IP}\ S \ldots t_j \ldots]]]]$

Alternatively, however, (14) can be satisfied by having [CORREL+CPR] adjoin to the IP of the headclause (see (15b)), in which case the C–head that separates $[CORREL+CPR]_j$ from the relative clause must remain empty: V–movement to C or complementiser insertion in C would preclude satisfaction of the condition in (14). And since there is no head position between the IP–adjoined [CORREL+CPR] and the subject (abbreviated as 'S' in (15)) in SpecIP, the IP–adjunction scenario will never give rise to inversion of the subject and the finite verb. So non-inversion in the headclause of a root comparative correlative results whenever [CORREL+CPR] adjoins to IP, which is one of the two options that present themselves when it comes to satisfying the requirement that says that the correlative particle must be adjacent to the relative clause (14).

The relative clause itself is arguably extraclausal (see also Srivastav 1991 and Bhatt 2003 on regular correlatives, and Bhatt & Pancheva 2006 on conditional correlatives): it itself never triggers Verb Second, and behaves in this respect like a variety of other clauses, all of which involve conditional semantics.[9] Thus, *(i)* verb-initial conditional clauses (16a), and *(ii)* clauses introduced by *(ook) al* '(lit.) also all, i.e., even if' (16b), and *(iii)* clauses introduced by *hoe* 'how' followed by a non-comparative adjective or quantifier (*veel* in (16c)) all fail to trigger Verb Second, hence are not followed by the finite verb of the main clause.

(16) a. mocht je nog geld nodig hebben, {ik wil/ *wil ik} je wel helpen
might you yet money needy have I want/want I you surely help
'should you need money, I am willing to help you'

b. (ook) al gaf je me een miljoen, {ik doe/*doe ik} het niet
also all gave you me a million I do/ do I it not
'even if you gave me a million, I won't do it'

c. hoeveel je ook leest, {je begrijpt/ *begrijp je} het toch niet
how-much you also read you understand/understand you it still not
'no matter how much you read, you still won't understand it'

The sentence-initial clause in (16c) is very similar to that found in the comparative correlatives in (13a,b), differing only in that the latter features a comparative while the former does not. All of the constructions in (16) behave basically like the comparative correlative as far as their distribution in non-root contexts is concerned as well. For comparative correlatives of the type in (11/13a), we find that they can be embedded in finite complement clauses to bridge verbs and also (though somewhat less felicitously to my ear) in finite non-bridge-verb contexts (including adjunct clauses), but not in non-finite contexts. This is illustrated in (17).[10] For the example in (16c), which I will use as a representative of the entire set of cases exemplified by (16), we see this pattern reproduced in (18) (with a somewhat stronger degradation in the c–example).

9 It is here that the conditional nature of the comparative correlative (noted by McCawley 1988, 1998 and discussed in some detail in Beck 1997) asserts itself and makes it form a natural class with other sentence-initial conditionals. See Den Besten (1977:fn. 3) for early discussion of some of the cases exemplified in (16); and see Bhatt & Pancheva (2006) and references cited there for the strong links between conditionals and correlatives.

10 On the non-finite cases, see also Culicover & Jackendoff (1999:550–51), for English. Embedding a comparative correlative in a finite clause under a non-bridge verb or in a finite adjunct clause is reasonably common. The reader may wish to verify this at his/her leisure by for instance typing in the string "alsof hoe meer" 'as if how more' or "omdat hoe meer" 'because how more' into his/her favourite search engine: these strings produce plenty of hits, all clearly instances of the comparative correlative construction.

(17) a. ik denk dat hoe meer je leest, hoe minder je begrijpt
I think that how more you read how less you understand
'I think that the more you read, the less you understand'

b. ?het is te betreuren dat hoe meer je leest, hoe minder je begrijpt
it is to regret that how more you read how less you understand
'it is regrettable that the more you read, the less you understand'

c. ?het lijkt alsof hoe meer je leest, hoe minder je begrijpt
it seems as-if how more you read how less you understand
'it seems as if the more you read, the less you understand'

d. *het is vervelend om hoe meer {je leest/te lezen}, hoe minder te begrijpen
it is annoying COMP how more you read/to read how less to understand
*'it is annoying the more you read/to read, the less to understand'

e. *hoe meer {je leest/lezen}, hoe minder begrijpen is irritant
how more you read/read-INF how less understand is irritating
*'the more reading, the less understanding is irritating'

(18) a. ik denk dat hoeveel je ook leest, je het toch niet begrijpt
I think that how-much you also read you it still not understand
'I think that no matter how much you read, you still won't understand it'

b. ?het is te betreuren dat hoeveel je ook leest, je het toch niet begrijpt
it is to regret that how-much you also read you it still not understand
'it is regrettable that no matter how much you read, you still won't understand it'

c. ??het lijkt alsof hoeveel je ook leest, je het toch niet begrijpt
it seems as-if how-much you also read you it still not understand
'it seems as if no matter how much you read, you still won't understand it'

d. *het is vervelend om hoeveel je ook leest, het toch niet te begrijpen
it is annoying COMP how-much you also read it still not to understand
*'it is annoying no matter how much you read, still not to understand it'

e. *hoeveel je ook leest, het toch niet begrijpen is irritant
hoe-much you also read it still not understand is irritating
*'no matter how much you read, still not to understand it is irritating'

Having established that the sentence-initial relative clause of comparative correlatives (like the initial clauses in (16)) is an extraclausal constituent, let me assume (with Srivastav 1991 and Bhatt 2003, among others) that it is adjoined to the headclause. The relative clause is arguably a full-fledged CP: relative clauses generally are CPs (perhaps with the exception of English infinitival relatives with a subject gap, as in *a man to fix the sink*; cf. Law 1991). But what about the headclause? Clearly, the headclause can be as large as a full CP. This is evident from the fact that the headclause-adjoined relative clause can occur to the immediate left of a V2–construction or a headclause featuring the complementiser *dat* (recall (11)). But if the headclause of a Dutch comparative correlative were always as large as a full-blown CP, it would be difficult to account for the relative ease of embedding comparative correlatives inside finite clauses. For finite clauses in the complement of bridge verbs one could imagine a CP recursion structure, with one CP directly embedded in another (see e.g. Vikner 1995, Iatridou & Kroch 1992). Indeed, some attested instances of embedded comparative correlatives exhibit subject–verb inversion in the headclause. But these cases of embedded root word order are not confined to bridge verb contexts: they occur in extraposed subject sentences and adjunct clauses as well, as in (19).[11] To my ear, all cases of embedded headclauses with V2 order have an unmistakably anacoluthic ring to them.

11 All three of the sentences in (19) are from academic discourse; the last example is from a linguistics (phonetics) abstract.

(19) a. het vervelende is, dat hoe meer jij je probeert te verzetten tegen blozen
the annoying is that how more you you try to resist against blushing
des te sneller treedt dit op
the-GEN DEG faster treads this up
'the annoying thing is that the more you try to resist blushing, the more quickly it happens'
[www.leidenuniv.nl/ics/ sz/so/persoonlijk/bloosblunder.htm]

b. ten eerste is het zo dat hoe meer bootstrapsteekproeven je gebruikt,
to-the first is it so that how more bootstrap-tests you use
des te "betrouwbaarder"/"stabieler" zal het percentieleninterval
the-GEN DEG reliable-CPR/ stable-CPR will the percentile-interval
en daarmee ook het betrouwbaarheidsinterval zijn
and therewith also the reliability-interval be
'first of all it is the case that the more bootstrap tests you use, the more "reliable"/"stable" will be the percentile interval and with that also the reliability interval'
[www.ppsw.rug.nl/~kiers/ Syllabus%20Stat1A%20HS2%20Bootstrap.doc]

c. omdat hoe meer een woordvorm lijkt op de 'canonieke vorm',
because how more a word-form looks on the canonical form
des te makkelijker is het voor de luisteraar om deze te 'mappen' op het mentale lexicon
the-GEN DEG easier is it for the listener COMP this to map onto the mental lexicon
'because the more a word form looks like the canonical form, the easier it is for the listener to map it onto the mental lexicon'
[www.fon.hum.uva.nl/FonetischeVereniging/DvdFonetiek/DagvdFonetiekAbstracts2002.html]

Cases like (19) aside, embedding comparative correlatives in nonroot contexts gives rise to obligatory verb-final order in the headclause of the comparative correlative (Den Dikken 2005b):

(20) a. ik denk dat hoe meer je leest, hoe minder {je begrijpt/ *begrijp je}
I think that how more you read how less you understand/understand you

b. ik denk dat hoe meer je leest, des te minder {je begrijpt/*begrijp je}

c. ik denk dat des te meer je leest, des te minder {je begrijpt/*begrijp je}

This dependency of the word order inside the second clause of the Dutch comparative correlative on the root/non-root asymmetry confirms that the second clause is the head of the construction. But at the same time it suggests that the headclause of the comparative correlative is not always as large as a full-fledged CP: to facilitate regular embedding comparative correlatives in non-bridge contexts (in a non-anacoluthic way, that is, unlike in (19)), it seems we have to countenance the possibility that the headclause of the comparative correlative is a mere IP, as in (21):

(21) $C\ [_{IP}\ [_{RELCL}\ [REL{+}CPR]_i \ldots t_i \ldots]\ [_{IP=HEADCL}\ [CORREL{+}CPR]_j\ [_{IP}\ S \ldots t_j \ldots]]]$

In this structure, both the relative clause and the [CORREL+CPR] constituent in the headclause are adjoined to IP, to the left of the subject. We had already found reason to believe that, instead of substituting for SpecCP, the fronted comparative in the headclause can adjoin to IP — recall (15b). And of course the requirement that the correlative particle be adjacent to the relative clause (14) is met by (21). The structure in (21) is entirely within the range of allowable structures for comparative correlatives, therefore. The embeddability of comparative correlatives in a broad range of finite complementation contexts is thus accounted for. The structure in (21) arguably is not available in infinitives, however — as witness, for instance, the fact that English does not allow topicalisation in infinitives (cf. *[*to Mary, to give a book*] *would be very nice* and [*that to Mary, they gave a book*] *was very nice*). So that will continue to rule out the embedding of comparative correlatives in infinitival contexts (recall (17c,d), and also fn. 10 on English, where the same applies, *mutatis mutandis*).

Now that we have (21) in place, we could consider getting rid of (15b) altogether and analyse instances of lack of verb fronting in comparative correlatives in *root* contexts (i.e., cases of the type illustrated in (13), above) in terms of a bare IP with both the relative clause and the fronted comparative adjoined to it. Zwart (1997) (following Travis 1984) argues that Dutch subject-initial root clauses are simple IPs, with the subject in SpecIP and the finite verb raised to I, producing a Verb Second effect. The fronting of the finite verb, however, is precisely what we would like to avoid in the analysis of sentences of the type in (13), where the verb is final, not raised. For (13), it would be hard to tell whether or not the finite verb has raised to I, because of the paucity of additional lexical material. But in slightly more complex examples such as the ones in (22), it is clear that the verb must be in final position in the headclause: it cannot surface between the subject and the PP *ervan* 'thereof'.

(22) a. hoe meer je leest, hoe minder je ⟨*begrijpt⟩ ervan ⟨✓begrijpt⟩
b. hoe meer je leest, des te minder je ⟨*begrijpt⟩ ervan ⟨✓begrijpt⟩
c. %des te meer je leest, des te minder je ⟨*begrijpt⟩ ervan ⟨✓begrijpt⟩
REL DEG more you read CORREL DEG less you understand thereof understand

An IP that serves as the root will, in a Verb Second language such as Dutch, always receive the finite verb in its head in the course of the overt-syntactic derivation. By contrast, the head of an IP embedded within CP *never* serves as the final resting place of a raised verb: terminal V–to–I movement is possible in Dutch only in undominated IPs, and in fact obligatory there. If we were to represent the root of the comparative correlatives in (13) and (22) as a bare IP, therefore, we would fail to block raising of the finite verb to I, thereby deriving the ungrammatical variants of (22). By having comparative correlatives in root contexts always project all the way up to CP, as in (15), we avoid this problem: IP is not undominated, hence terminal V–to–I cannot proceed. V–to–I–to–C movement *can* proceed in (15a); but verb movement is blocked altogether in (15b): verb raising all the way up to C would interfere with (14), and is impossible across IP–adjoined material in any event;[12] and verb raising to I and no further is incompatible with IP not being undominated in this structure. So (15b) correctly ensures that there will be no verb fronting at all in (22). Since a root version of (21) does not manage to accomplish this, we therefore cannot trade (15b) in: we must keep it.

This is all we need to say in the context of this paper about the macrostructure of the Dutch comparative correlative. Before proceeding to the discussion of the locality effects that are at the core of this paper, let me briefly recapitulate my main findings in this section:

(23) a. comparative correlatives in *root* contexts are full CPs, with the relative clause CP–adjoined
b. comparative correlatives in *embedded* contexts are IPs, with the relative clause IP–adjoined
c. when [CORREL+CPR] raises to SpecCP (in root contexts only), the C–head can be filled by either a complementiser or a raised finite verb (the latter delivering subject–verb inversion)
d. when [CORREL+CPR] raises to an IP–adjoined position in root contexts, the C–head must remain unfilled for compliance with (14)

These conclusions will serve as important background to the discussion to follow.

12 To see this, consider the English and Dutch examples in (i) and (ii), with the leftmost adverbs assumed to be IP–adjoined.

(i) a. ik denk dat <gisteren> Jan <gisteren> de computer <gisteren> niet op de juiste manier heeft uitgeschakeld
I think that yesterday Jan yesterday the computer yesterday not on the right way has off-switched
'I think that Jan did not switch off the computer in the proper way yesterday'
b. waarom heeft <*gisteren> Jan <gisteren> de computer <gisteren> niet op de juiste manier uitgeschakeld?
why has yesterday Jan yesterday the computer yesterday not on the right way off-switched
'why didn't Jan switch off the computer in the proper way yesterday?'
(ii) a. <probably> John <probably> has <probably> not switched off the computer in the proper way
b. why has <*probably> John <probably> not switched off the computer in the proper way?

3 Long-distance dependencies in comparative correlatives and successive cyclicity

The key to our understanding of long-distance dependencies in comparative correlatives is held by an account of the restrictions on successive-cyclic movement through the SpecCP position of an embedded clause into an A′–position in a higher clause. But before turning to those restrictions, let me first provide empirical support for the existence of successive-cyclic A′–movement through SpecCP, to set the stage.

3.1 Successive-cyclic movement via SpecCP

That it is possible to A′–move a constituent out of an embedded clause into a higher clause via an intermediate touch-down in the lower SpecCP is suggested in a particularly interesting way by certain Q–Float facts in Irish English discussed by McCloskey (2000).[13] Consider the triple in (24):

(24) a. what *all* did he say (that) he wanted *t*? (Irish English)
b. what did he say (that) he wanted *t all*?
c. what did he say *all* (that) he wanted *t*?

On the assumption (based on Sportiche 1988) that floating quantifiers are stranded in positions that are members of the chain of a moved constituent that the quantifier is construed with, (24b) is straightforwardly analysed in terms of stranding of the quantifier *all* in the base position of the *wh*-phrase. And of course (24a) is unproblematic as well: here the quantifier is simply pied-piped by movement of *what* into the matrix SpecCP. The interesting case is (24c), which has the quantifier stranded in an intermediate position on the movement path. This position, to the immediate left of *that* (when it occurs) and to the immediate right of *say* (which does not appear to have undergone any movement), seems to have to be the SpecCP position of the embedded clause — a position in which standard analyses of long-distance A′–extraction going back to Chomsky (1977) predict there to be an intermediate trace of the extracted *wh*-phrase. The grammaticality of (24c) thus presents evidence, on a Q–stranding approach to Q–Float, for an intermediate touch-down in SpecCP in the process of long *wh*-fronting.[14]

(25) $[_{CP}$ *what*$_i$ $[_{C'}$ did he say $[_{CP}$ $[t_i$ *all*$]_j$ $[_{C'}$ (that) he wanted $t_j]]]]$

In recent work of my own (see Den Dikken 2006) on long A′–dependencies involving focus fronting in Hungarian, I have argued on the basis of the Case and agreement behaviour of long focus fronting that it can proceed via an intermediate touch-down in SpecCP as well. The key cases under discussion in that work are illustrated in (26). Here the the raised focus, though functioning as the subject of the embedded finite verb (which would normally get nominative Case), bears accusative Case, and the matrix verb agrees in definiteness and person with the extractee: in (26a), the raised focus is indefinite, hence the matrix verb shows up in the indefinite agreement form; in (26b) both the focus and the matrix verb are definite; and in (26c), the matrix verb agrees in person with the second-person focus, resulting in specialised morphology (*-lak*).

13 Rackowski & Richards (2005) note that other familiar evidence for successive cyclicity, primarily having to do with complementiser agreement, can be taken care of without movement through SpecCP on an Agree-based approach. But the Q–Float facts (which they do not address) are less easy to take care of without a stopover in SpecCP.

14 There are two nontrivial qualifications in order here. First, it is not obvious that Sportiche's (1988) original Q–stranding approach to Q–Float is literally correct (see e.g. Bobaljik 2001 for relevant discussion). And secondly, it is not immediately evident that the matrix verb, *say* in the examples in (24), indeed has not undergone any movement: though it is clear that, if it is to have raised, it has not raised very far, it could have undergone short-distance movement to a functional head position immediately outside VP (see e.g. Johnson 1991 and Pesetsky 1989 for arguments to the effect that in standard English the lexical verb does in fact leave its VP). If so, one could argue that *all* in (24c) finds itself in a position ajoined to the VP (or *v*P) of the matrix clause, not in SpecCP.

(26) a. KÉT FIÚ-T akar-ok, hogy *ec* jöjjön (Hungarian)
two boy-ACC want-1SG.INDEF that come-SUBJUNC-3SG
b. A KÉT FIÚ-T akar-om, hogy *ec* jöjjön
the two boy-ACC want-1SG.DEF that come-SUBJUNC-3SG
c. TÉGED akar-lak, hogy *ec* jöjjél
you-ACC want-LAK/LEK that come-SUBJUNC-2SG
'it is {TWO BOYS/THE TWO BOYS/YOU} that I want *ec* to come'

These examples contrast with the likewise grammatical ones in (27), where the raised focus surfaces with (morphologically unmarked) nominative Case and the verb systematically bears definite agreement as a reflex of its Agree relationship with the embedded CP (which, in Hungarian, triggers definite agreement).

(27) a. KÉT FIÚ akar-om, hogy *ec* jöjjön
two boy.NOM want-1SG.DEF that come-SUBJUNC-3SG
b. A KÉT FIÚ akar-om, hogy *ec* jöjjön
the two boy.NOM want-1SG.DEF that come-SUBJUNC-3SG
c. TE akar-om, hogy *ec* jöjjél
you.NOM want-1SG.DEF that come-SUBJUNC-2SG
'it is {TWO BOYS/THE TWO BOYS/YOU} that I want *ec* to come'

I have argued that both (26) and (27) involve extraction of the focus out of the embedded clause into the matrix clause via A′–movement.[15] But while in (27) the focus extracts from the embedded clause *without* a touch-down in SpecCP (via a derivation along the lines of Rackowski & Richards's 2005 recent analysis of long A′–movement in Tagalog), in (26) it proceeds successive-cyclically via a stopover in SpecCP. It is this stopover that enables the matrix verb to establish a morphological agreement relationship with the extracted focus for Case, (in)definiteness, and person.

If my analysis of these Hungarian facts (which is spelled out in greater detail in Den Dikken 2006) is on the right track, there are two ways in which a constituent of an embedded finite clause can escape from that clause via A′–movement: either of the scenarios depicted in (28) is available to it in principle.

(28) a. XP_i ... $[_{VP}$ V $[_{CP}$ t_i' $[_{C'}$ C $[_{TP}$ (...) t_i (...)]]]]
b. XP_i ... $[_{VP}$ V $[_{CP}$ C $[_{TP}$ (...) t_i (...)]]]

For Hungarian, the alternation between (26) and (27) provides direct evidence for the existence of these two strategies — and since the evidence is directly manifest in the morphosyntactic output, the language user will have no difficulty deciding which of the two scenarios is at work in which particular case. But in light of the conclusion that (28a,b) both exist as valid long A′–movement strategies in Universal Grammar, for every language it will have to be decided, for each individual case, whether movement proceeds successive-cyclically through SpecCP or not.

For the case of Dutch, the discussion to follow will make a case that speakers that show a sensitivity to the factors in (10) avail themselves of a derivation of long-distance dependencies in comparative correlatives making an intermediate stopover in SpecCP — in other words, (28a) is the way to go for these Dutch speakers. Once I have established, I will return to the theoretical questions posed by the outcome of the discussion of the Dutch facts, in section 4. But first, let me put in place an important restriction on successive-cyclic A′–movement.

15 That is, it is not the case that the focus in (26) originates in the matrix clause and binds a resumptive pronoun downstairs. Such *is* in fact the case when the morphologically singular but notionally plural noun phrases in (26a,b) co-occur with a third person *plural* finite verb in the downstairs clause (i.e., *jöjjenek*) — something which a subset of speakers of Hungarian allow (see Gervain 2003, 2005 for details). But in (26a,b), where the embedded verb is *singular* (*jöjjön*), only a long movement scenario is available.

3.2 The Principle of Unambiguous Binding (Chain Uniformity)

In their detailed study of the lack of interaction between scrambling and *wh*-movement, Müller & Sternefeld (1993) argue for a condition on A′–dependencies that they formulate as follows:

(29) *Principle of Unambiguous Binding (PUB)*
a variable that is α-bound must be β-free in the domain of the head of its chain
(where α and β refer to different types of positions)

They go on to explain that, since 'α-bound' means 'bound from a position of type α' and 'β-free' means 'not bound by a position of type β', it follows that 'a particular type of A′–movement (e.g., movement to a β-position) may not feed another type of movement (e.g., movement to an α-position)' (Müller & Sternefeld 1993:461). They show that this restriction on A′–dependencies finds strong support in the restrictions on scrambling in a broad variety of languages. Central among these restrictions is the fact that scrambling cannot transgress the boundaries of a finite clause: sentences of the type in (30a,b) (from German) are ungrammatical (whereas their counterparts involving clause-mate scrambling are grammatical).[16]

(30) a. *... daß niemand [$_{VP}$ Pudding$_i$ [$_{VP}$ sagt [$_{CP}$ t_i′ daß sie t_i mag]]] (German)
that nobody pudding says that she likes
b. *... daß [$_{IP}$ Pudding$_i$ [$_{IP}$ niemand sagt [$_{CP}$ t_i′ daß sie t_i mag]]]
that pudding nobody says that she likes

The problem with these sentences lies precisely in the fact that they violate the PUB in (29). Traces of scrambling are taken to be variables;[17] but the variables (t_i) in (30) are not unambiguously bound: they are bound ambiguously from two different types of positions, one an A′–*specifier* position (SpecCP) and the other an A′–*adjunction* position (the VP– or IP–adjoined position in the matrix clause).

Especially interesting for our purposes in this paper is the ill-formedness of structural configurations of the type in (30b), with an IP–adjoined element in the matrix clause unsuccessfully serving as the antecedent in a case of successive-cyclic movement through SpecCP. I will show why in the next subsection.

3.3 Long-distance dependencies in comparative correlatives: Analysis

In section 2, I argued that Dutch comparative correlatives provide two potential landing-sites for the fronted comparative in the headclause: the phrase [CORREL+CPR] may either substitute for SpecCP, or alternatively it may adjoin to IP. The two derivations are depicted in (15), repeated here.

(15) a. [$_{CP}$ [$_{RELCL}$ [REL+CPR]$_i$ ... t_i ...] [$_{CP=HEADCL}$ [CORREL+CPR]$_j$ [$_{C'}$ C={V_{fin}, *dat*} [$_{IP}$ S ... t_j ...]]]]
b. [$_{CP}$ [$_{RELCL}$ [REL+CPR]$_i$ ... t_i ...] [$_{CP=HEADCL}$ C=∅ [$_{IP}$ [CORREL+CPR]$_j$ [$_{IP}$ S ... t_j ...]]]]

In local contexts, in which the variable left by movement of [CORREL+CPR] (t_j) is a clausemate of its binder, both scenarios in (15) are in perfect conformity with the PUB in (29). But now consider a derivation in which the fronted comparative in the headclause starts out in an embedded finite CP and extracts from it via an intermediate touch-down in SpecCP, as depicted in (31):

16 The sentences in (30) are presented here with Müller & Sternefeld's (1993:465) original structural annotations.

17 Müller & Sternefeld (1993:466, fn. 3) duly note that the idea that scrambling is A′–movement is not uncontroversial (giving some key references to seminal contributions to this debate from the late 'eighties and early 'nineties) — famously, scrambling does not give rise to crossover effects, instead feeding binding; but I agree with Müller & Sternefeld that scrambling is indeed A′–movement, certainly not garden-variety A–movement.

(31) a. $[_{CP}\ [_{RELCL}\ [REL+CPR]_i \ldots t_i \ldots]\ [_{CP=HEADCL}\ [CORREL+CPR]_j\ [_{C'}\ C\ [_{IP}\ S \ldots [_{CP}\ t_j'\ [_{C'} \ldots t_j \ldots]]]]]]$
b. $*[_{CP}\ [_{RELCL}\ [REL+CPR]_i \ldots t_i \ldots]\ [_{CP=HEADCL}\ C\ [_{IP}\ [CORREL+CPR]_j\ [_{IP}\ S \ldots [_{CP}\ t_j'\ [_{C'} \ldots t_j \ldots]]]]]]$

This time, the two choices of final landing-site for the fronted comparative do make a vital difference: the derivation in (31b), featuring successive-cyclic movement of [CORREL+CPR] into an IP–adjoined position in the headclause, is ruled out by the PUB for the same reason that (30b) is; but (31a) is perfectly well-formed. This, in essence, is what is responsible for the ungrammaticality of certain instances of long-distance dependencies in Dutch comparative correlatives. But some more work is needed to fill in the details, which, as we have seen, are rather involved: there are four factors that influence the grammaticality of long-distance dependencies in Dutch comparative correlatives, summed up in (10), which is repeated here for convenience:

(10) *factors influencing the (un)grammaticality of long-distance dependencies in Dutch CCs*

a. the relative clause *vs* headclause distinction
→ for most speakers, long-distance dependencies are easier in the relative clause than they are in the headclause

b. the finite/non-finite distinction
→ for most speakers, long-distance dependencies are easier across infinitival clause boundaries than they are across finite clause boundaries

c. the choice of (cor)relative particle — *hoe* [+WH] versus *des* [–WH]
→ for some speakers, long-distance dependencies (esp. in the headclause) are easier with *hoe*+CPR than they are with *des te*+CPR

d. the word order of the headclause (with *des te*+CPR)
→ for some speakers, long-distance dependencies in the headclause (and to some extent also in the relative clause) are easier when *des te*+CPR in the headclause is not directly followed by the subject but instead is separated from it by either the raised finite verb (in a Verb Second construction) or a complementiser

I will address each of these factors in the following subsections, against the background of (31).

3.3.1 The headclause/relative clause distinction

Relative clauses are always CPs. And *headed* relative clauses, as far as I am aware, always involve A′–movement of the relative operator into SpecCP. For a language such as Hungarian, which is known to often front its *wh*-constituents into positions substantially lower in the tree than SpecCP, this can be verified by investigating the (im)possibility of inserting a topic to the left of the relative operator. As Kenesei (1992) points out, Hungarian does not allow topics to be placed in such a position in its headed relatives: (32a,b) are bad with *Pétert* to the left of *aki* (though perfectly fine if it stays in clause-internal position).

(32) a. a lány, ⟨*Pétert⟩ aki meghívta ⟨Pétert⟩, rosszul tette (Hungarian)
the girl Péter-ACC A-who.NOM invited Péter-ACC badly did
b. az ⟨*Pétert⟩ aki meghívta ⟨Pétert⟩, rosszul tette
that Péter-ACC A-who.NOM invited Péter-ACC badly did
c. ∅ ⟨?Pétert⟩ aki meghívta ⟨Pétert⟩, rosszul tette
that Péter-ACC A-who.NOM invited Péter-ACC badly did
'{the girl/(s)he/∅} who invited Peter made a mistake'

In (32a) we are dealing with a common and garden headed relative clause, with *a lány* 'the girl' as the head. Though interpretively more like (32c) than like (32a), the sentence in (32b) involves a headed relative as well — albeit that the head in this particular instance is light, just a demonstrative pronoun (*az*). This is an example

of what Citko (2004) calls a 'light-headed relative'. It behaves, as far as the criterion in question is concerned, just like a headed relative, in disallowing the placement of a topic to the left of the relative pronoun. But *free* (or 'empty-headed') relatives are different when it comes to this: as (32c) shows, Hungarian free relatives differ from headed relatives in allowing topics to precede the relative operator. Topicalisation across the relative pronoun in free relatives is not a staple of the spoken vernacular: rather, it is typical of elevated, literary styles.[18] This suggests that it is possible in principle for A′–movement of the relative pronoun to target a position *lower than* SpecCP — in free relatives, but not in headed relatives; and only in certain registers.

Let us take the position of the *wh*-pronoun in the free relative in (32c) to be an IP–adjoined position.[19] Assuming so, these Hungarian facts become of immediate interest for our discussion of Dutch comparative correlatives. In comparative correlatives, the initial clause is a relative clause — more specifically, it is a *free* relative clause. And whereas in headed relative clauses, as we have just seen, the relative operator must raise to SpecCP, under certain circumstances it is possible for the relative operator to move to a lower, IP–adjoined position in free relatives. Those special circumstances, in the case of Hungarian, are all about register and style. Now, comparative correlatives *per se* are not restricted to elevated or literary styles: they occur frequently in the spoken vernacular. But the comparative correlatives that we are investigating in this paper all involve a long-distance A′–dependency in one of the two constituent clauses. This will certainly have an effect on their distribution across different registers. Though I have not explicitly tested this, the high propensity of comparative correlatives with long-distance dependencies in web-posted texts of an academic or otherwise formal nature (notably including sermons) suggests that indeed, these are characteristic of more elevated registers, not of the everyday spoken language.

In light of this, one would expect that the initial clause of the comparative correlative (the free relative clause) will standardly feature A′–movement of the relative operator (pied-piping the comparative) into SpecCP, but that, under certain circumstances, depending on style and register, the [REL+CPR] complex could also target an IP–adjoined position inside the relative clause. Simply put, in the free relative clause, (33a) is the normal case, and (33b) may be available under special conditions.

(33) a. $[_{\text{CP=RELCL}}\ [\text{REL+CPR}]_i\ [_{\text{C}'}\ \text{C}\ [_{\text{IP}}\ \text{S} \ldots t_i \ldots]]]$
b. $[_{\text{CP=RELCL}}\ \text{C}\ [_{\text{IP}}\ [\text{REL+CPR}]_i\ [_{\text{IP}}\ \text{S} \ldots t_i \ldots]]]$

The predictions with regard to long-distance dependences are now straightforward, bearing in mind what was said in section 3.2 and assuming that long-distance movement of the comparative must proceed successive-cyclically through SpecCP (recall section 3.1): in the standard case, long movement of [REL+CPR] in the relative clause of the comparative correlative should be able to proceed without obstruction as long as the embedded clause is not an island; but whenever [REL+CPR] adjoins to IP, the PUB in (29) prohibits all long-distance dependencies.

The facts are basically in conformity with the predictions. The vast majority of speakers find there to be no significant difference between short- and long-distance dependencies in the relative clause of the Dutch comparative correlative. Except for one speaker, all my informants find that long-distance dependencies in the relative clause featuring the *wh*-operator *hoe* 'how' are not (significantly) worse than the corresponding short-distance dependencies — i.e., for virtually all speakers, (34a) is grammatical.

18 The fifth line of the first stanza of the Hungarian national anthem ('Hymnusz') contains a well-known example of this type:

(i) bal sors akit régen tép (Hungarian)
adverse fate.NOM A-who-ACC long tear.apart
'he whom bad fate has long torn apart'

19 It certainly is not a focus position: relative pronouns are not focusable. It could be a topic position — word orders in which the relative pronoun immediately precedes a topic which in turn immediately precedes the subject are possible in Hungarian free relatives, even in those featuring a topicalised constituent to the left of the *wh*-pronoun (e.g.: *a könyvet akinek tegnap Péter odaadta* 'the book-ACC A-who-DAT yesterday Péter(NOM) PV-gave, i.e. the person to whom Péter gave the book yesterday' — Anikó Lipták, p.c.).

(34) a. $[_{\text{RELCL}}\ [\textit{hoe}+\text{CPR}]_i \quad \ldots\ [_{\text{CP}}\ t_i' \ \ldots\ t_i]]$
b. $^{\%}[_{\text{RELCL}}\ [\textit{des te}+\text{CPR}]_i \quad \ldots\ [_{\text{CP}}\ t_i' \ \ldots\ t_i]]$

There are four speakers (K, L, O and P in appendix A.4), however, who report a slight degradation for relative-clause internal long-distance dependencies involving *des* as the relative operator, as in (34b); and two speakers (N and Q) reject such dependencies outright. This suggests that, whereas *hoe*+CPR almost systematically lands in SpecCP, for some speakers *des te*+CPR targets an IP–adjoined position in the relative clause — thus inducing 'PUB effects' under long-distance extraction. The use of *des te* in the relative clause is a stylistically marked option: several of my informants simply do not accept *des te* in the relative clause of the comparative correlative at all, allowing it only in the headclause. I take it, then, that *des te*+CPR is a likely candidate for IP–adjunction in the relative clause — and that some speakers allow *des te*+CPR no other option, thereby ruling out long-distance dependencies in the relative clause altogether in the case *des te*+CPR. With the facts interpreted this way, the one informant who consistently rejected all long-distance dependencies in the relative clause (the speaker identified in section A.4 as 'Q') must have generalised the IP–adjunction strategy to *hoe*+CPR as well. But for the vast majority of speakers, long movement of *hoe*+CPR in the relative clause is perfectly grammatical, as expected in light of the fact that *(a) hoe*+CPR is not stylistically marked, and *(b)* SpecCP is the unmarked landing-site for relative operators, as I showed before.

In the *headclause*, by contrast, there are considerably more rejections of long-distance dependencies involving *hoe*+CPR — though here as well, *des te*+CPR consistently scores lower grades when it comes to long extraction. I have annotated the empirical lie of the land (see informants I–Q in A.4) as in (35), where '%' stands quite simply for speaker variation, and '%*' represents a strong but not absolute tendency for rejection.

(35) a. $^{\%}[_{\text{HEADCL}}\ [\textit{hoe}+\text{CPR}]_i \quad \ldots\ [_{\text{CP}}\ t_i' \ \ldots\ t_i]]$
b. $^{\%*}[_{\text{HEADCL}}\ [\textit{des te}+\text{CPR}]_i \ \ldots\ [_{\text{CP}}\ t_i' \ \ldots\ t_i]]$

Relative clauses are generally forced to be CPs, and movement of the relative operator generally targets SpecCP — for reasons that are entirely independent of anything that is going on in the comparative correlative *per se*. But in the headclause, there are no strong independent reasons that force [CORREL+CPR] to raise to SpecCP. IP–adjunction would seem to be a perfectly viable option in principle. For all headclauses in which an A′–dependency involving the comparative is formed such that the fronted comparative lands in an IP–adjoined position, the PUB in (29) predicts ungrammaticality under long extraction. The higher rate of rejection of long-distance dependencies in the headclause of the Dutch comparative correlative thus suggests that IP–adjunction is resorted to much more often in the headclause than in the relative clause — because this strategy is available much more liberally than it is in the relative clause, and arguably also because adjunction to IP is 'cheaper' than substitution for SpecCP, especially in contexts in which there is no direct empirical evidence from word order to suggest that the fronted comparative has landed in SpecCP.

The distribution of the two options (substitution for SpecCP and adjunction to IP) seems to be determined to a significant extent by the nature of CORREL (*hoe* or *des*), and also by the word order in the headclause, following the fronted comparative. This naturally leads us to a discussion of factors (10c) and (10d). But before I turn there, let me briefly address factor (10b), the role of finiteness, which is relatively easy to deal with.

3.3.2 The role of finiteness

So far we have seen that long-distance dependencies in the two constituent clauses of the comparative correlative are constrained by the PUB in (29): whenever the fronted comparative can be argued on reasonable grounds to have landed in an IP–adjoined position, long-distance extraction thereof via an intermediate touch-down in SpecCP is ruled out. The sensitivity of long extraction of the comparative from a finite complement clause to the nature of the landing-site (which will be further supported in section 3.3.3) suggests that such extraction does indeed proceed via a touch-down in SpecCP in the case of finite complement clauses.

For extraction from *infinitival* complement clauses (as in (9a), repeated below), by contrast, a stopover in SpecCP is not needed — in fact, it is probably impossible: (9a) and its ilk are *verb raising* constructions showing *clause union* effects that arguably diagnose the absence of a CP–layer for the infinitival clause (cf. e.g. Wurmbrand 2003).

(9a) hoe meer je leest, hoe minder je denkt te begrijpen
how more you read how less you think to understand

So with CP altogether absent from the complement of the matrix verb in cases like (9a), no touch-down in an embedded SpecCP position will be made in the derivation of sentences of this type. As a result, the PUB in (29) will not reject any instance of a long-distance dependency across an infinitival clause boundary. And indeed, almost all speakers report that in infinitival contexts, long-distance dependencies are no worse than their short-distance counterparts, in both the relative clause and the headclause. One speaker (the one identified in A.4 as 'Q') reports consistent degradation (to full ungrammaticality, throughout) in all long-distance contexts, whether finite or non-finite; and another speaker ('P') rejects all finite and non-finite long-distance dependencies in the *head*clause. A possible line of approach would be to say that, for these two speakers, the infinitival complement of *denken* IS a CP, with successive-cyclic movement through SpecCP forced, and with the output of successive-cyclic movement ruled out by the PUB on the assumption that, for these speakers, the fronted comparative consistently targets an IP–adjoined position (for speaker 'P' only in the headclause).

The viability of such an approach remains to be investigated. I will not discuss this judgement type in any further detail in this paper, since it is very clearly a minority pattern. For all other speakers, long-distance dependencies across infinitival clauses are generally possible in both clauses of the Dutch comparative correlative: there is no sensitivity to the nature of the landing-site (SpecCP or an IP–adjoined position), and, consequently, no sensitivity to the nature of the (cor)relative pronoun or to the word order in the headclause — two factors that do constrain long-distance dependencies across *finite* clause boundaries, as I will now go on to discuss.

3.3.4 The nature of the (cor)relative pronoun

We have already seen, in our discussion of long-distance dependencies in the relative clause in section 3.3.1, that the choice of relative pronoun to some extent influences the success of such dependencies there: for a relatively small subset of speakers (only four of my informants), *des te*+CPR does not easily form long-distance dependencies in the relative clause, while *hoe*+CPR generally encounters no significant difficulties in this domain. I blamed that on the general stylistic markedness of *des te* in the relative clause of the comparative correlative, in line with the discussion of the vicissitudes of IP–adjunction of the relative pronoun in Hungarian free relatives.

In the *head*clause of the Dutch comparative correlative, there are no (strong) stylistic factors at play, however, when it comes to the choice between *hoe*+CPR and *des te*+CPR: while (13c), with *des te* in the relative clause, is marked, both (13a) and (13b) are generally deemed perfectly fine, and to be essentially in free variation.

(13) a. hoe meer je leest, hoe minder je begrijpt
b. hoe meer je leest, des te minder je begrijpt
c. %des te meer je leest, des te minder je begrijpt
REL DEG more you read CORREL DEG less you understand

So the fact that many speakers nonetheless show a distinctive sensitivity to the choice of correlative particle in the headclause of the comparative correlative in long-distance dependency contexts — a sensitivity that is in fact stronger here than it is in the relative clause — calls for a different sort of explanation.

I would like to argue here that *hoe*+CPR, by virtue of being [+WH], can in principle always raise to SpecCP, in headclauses and relative clauses alike. But whenever *hoe*+CPR raises to SpecCP in the headclause, raising of the finite to C is impossible: if one were to have performed subject–finite verb inversion under fronting of the *wh*-constituent, one would necessarily have ended up with the semantics of a *wh*-question for the headclause (cf. Postma's 1995 and Bennis' 1995 structure-based approach to the interpretation of *wh*-elements): strings of the type WH-PHRASE – VFIN – SUBJECT – ... are unambiguously questions; but questionhood is obviously an inappropriate illocutionary force for the headclause of a (declarative) correlative construction. In the case of comparative correlatives, things are in fact even worse: inversion in the headclause would deliver the string **hoe*+CPR – VFIN – SUBJECT – ..., which is not even well-formed as a question (since *hoe*+CPR is not usable in *wh*-questions, *hoeveel*+A 'how much' being employed instead; this is an instance of Corver's 1997 '*much*-support', which apparently, for reasons I cannot discuss here, is not applicable in comparative correlatives). There are overriding factors, therefore, which categorically ban inversion of the subject and the finite verb in the headclause of comparative correlatives with *hoe*+CPR. To produce a grammatical output, comparative correlatives with *hoe*+CPR in the headclause have three options: *(i)* they can avoid the whole problem of raising to C by adjoining *hoe*+CPR to IP, as in (36b) (cf. (15b)); *(ii)* they can raise *hoe*+CPR to SpecCP (as in (36a)) and plug the C–head up with a complementiser; or *(iii)* they can raise *hoe*+CPR to SpecCP and leave the C–position empty.

(36) a. $[_{CP}\ [_{RELCL}\ [REL+CPR]_i \ldots t_i \ldots]\ [_{CP=HEADCL}\ [hoe+CPR]_j\ [_{C'}\ C=\{dat/\varnothing/*V_{fin}\}\ [_{IP}\ S \ldots t_j \ldots]]]]$

b. $[_{CP}\ [_{RELCL}\ [REL+CPR]_i \ldots t_i \ldots]\ [_{CP=HEADCL}\ C=\varnothing\ [_{IP}\ [hoe+CPR]_j\ [_{IP}\ S \ldots t_j \ldots]]]]$

Of these three options, the third is the most marked one: it flies in the face of an otherwise robust property of Verb Second languages, that the C–position of a root clause must be occupied whenever the SpecCP position is occupied. Since the linear output of *(iii)* is the same as that of *(i)*, one would therefore expect that at least some speakers would prefer (36b) in the case of *hoe*+CPR, thereby avoiding the selection of the version of (36a) with an empty C–head. But of course, for speakers selecting (36b), we expect there to be no chance of constructing a long-distance dependency: the PUB in (29) rules out movement into an IP–adjoined position via an intermediate touch-down in SpecCP. This, then, takes care of those speakers who reject (35a) in the headclause. For most speakers, however, the fact that *hoe*+CPR is a *wh*-phrase, combined with the fact that *wh*-phrases generally raise to SpecCP in headclauses in Dutch, seems to be sufficient reason to select (36a) even in the absence of any overt material filling C. For those speakers, long-distance dependencies involving *hoe*+CPR are perfectly well-formed: as we have seen, movement to SpecCP can proceed successive-cyclically via SpecCP, in keeping with the PUB in (29).

Though, as we have seen, some speakers reject long-distance dependencies in the headclause in the case of *hoe*+CPR, there are significantly more speakers who reject (35b), with *des te*+CPR. Since *des te*+CPR is not a *wh*-phrase (unlike *hoe*+CPR), there is no particular incentive in this case to substitute *des te*+CPR for SpecCP. A significant piece of data in this connection seems to me to be the following. There is no doubt that *hoe*+CPR can land in a high SpecCP position: it can be immediately followed by the complementiser *of* 'if'(as in (37a); see (i) in fn. 6 for some examples and discussion). But *des te*+CPR does not seem to be able to land this high: it is *never* followed by *of* in the comparative correlative (i.e., (37b) does not occur, and I strongly reject it myself, while I do accept the sentences of the type in (37a) as representatives of spoken Dutch).

(37) a. $[_{HEADCL}\ [hoe+CPR]\quad [(of)\quad (dat) \ldots]]$

b. $[_{HEADCL}\ [des\ te+CPR]\quad [(*of)\ (dat) \ldots]]$

While it is possible to have *des te*+CPR in the headclause followed the complementiser *dat* 'that', as in (38b), it is never followed by *of*, which is the higher of the two complementisers (cf. *wie of dat* 'who if that' vs. **wie dat of*); *hoe*+CPR, on the other hand, can be followed by either or both of *of* and *dat* (see also Coppen 1997).

It is plausible, therefore, to assume that *des te*+CPR targets relatively lower positions in the tree than does *hoe*+CPR. Adjunction to IP is a desirable option for *des te*+CPR in the headclause — particularly if there is no evidence in the linear string for the 'activation' of the CP layer. So in comparative correlatives in which, in the headclause, *des te*+CPR is immediately followed by the subject (i.e., there is no subject–verb inversion and there is no complementiser insertion in C either), one would expect (36b) to be the structure of choice. With (36b) chosen, the PUB will then rule out all long-distance dependencies involving *des te*+CPR. And indeed, what we find is that the most strongly rejected case of a long-distance dependency in comparative correlatives in Dutch is the case of such a dependency established in a *headclause* featuring *des te*+CPR immediately followed by the subject, as in (38a).

(38) a. %*..., des te minder je denkt dat je begrijpt
the-GEN DEG less you think that you understand

When *des te*+CPR in the headclause is *not* immediately followed by the subject, however, but instead is separated from the subject by either the raised finite verb or a lexical complementiser, the ban on long-distance dependencies is somewhat less severe: there are speakers (the ones identified as 'K' and 'L' in appendix A.4, in particular) for whom one or both of (38b,c) are noticeably better than (38a).[20]

(38) b. %..., des te minder denkt je dat je begrijpt
the-GEN DEG less think you that you understand
c. %..., des te minder dat je denkt dat je begrijpt
the-GEN DEG less that you think that you understand

This, then, leads us to our last factor influencing the vicissitudes of long-distance dependencies in Dutch comparative correlatives: the word order in the headclause.

3.3.5 Word order in the headclause

While *des te*+CPR cannot be followed by *of* 'if', as (37b) showed, it *can* be followed by other material that evidences the activation of the C–domain — fronted finite verbs or the complementiser *dat* 'that', as in (38b,c). Whenever *des te*+CPR, or *hoe*+CPR,[21] for that matter, is immediately followed by material that signals explicitly that the [CORREL+CPR] sequence is *not* IP–adjoined but finds itself instead in a SpecCP position, that should give the language user the necessary cue to allow long-distance dependencies involving the comparative.

Some speakers do indeed report an effect of word order in the headclause on the grammaticality of long-distance dependencies in the headclause. The effect is not very systematic or robust, however (recall fn. 20 on independen factors weakening the effect of complementiser insertion). The analysis predicts a strong effect here — but while there are two speakers in my survey for whom the effect manifests itself to a significant extent, I must admit at this time that the theory's predictions are stronger than the judgements I have collected so far seem to warrant. This is an issue that remains to be investigated further.

20 The effect is clearer in (38b) than it is in (38c) — but this is due, no doubt, to the fact that complementiser insertion in the headclause of the comparative correlative is generally a marked option, felt to be typical of the spoken vernacular. Since long-distance dependencies are more likely to be found in the written language, a combination of *dat*-insertion and a long-distance dependency in the headclause thus leads to a bit of a register clash, which is likely to be responsible for the less systematic effect of *dat*-insertion on long-distance extraction of the comparative.

21 For *hoe*+CPR, most speakers do not accept a fronted finite verb to follow it in a V2 configuration (recall (11) and fn. 5). So for *hoe*+CPR the only explicit signal that it occupies SpecCP (besides the grammaticality of long-distance dependencies) is the presence of a lexical complementiser to its immediate right.

3.3.6 The effect of embedding on long-distance dependencies

There is one last thing I would like to briefly bring up before closing this section on locality effects in Dutch comparative correlatives. Recall from section 2 that comparative correlatives in root contexts must be as large as CP (in a Verb Second language such as Dutch), but that in non-root contexts, the comparative raises into an adjunction position to IP and the relative clause adjoins to IP as well, as in (21), repeated below.

(21) $\quad C\ [_{IP}\ [_{RELCL}\ [REL+CPR]_i\ ...\ t_i\ ...]\ [_{IP=HEADCL}\ [CORREL+CPR]_j\ [_{IP}\ S\ ...\ t_j\ ...]]]$

The structure in (21) is generally available, also under non-bridge verbs (so long as the non-root clause is finite). Cases of CP recursion aside (recall (19)), (21) is the structure employed in all instances of comparative correlatives in non-root contexts. So cases of CP recursion aside, in embedded comparative correlatives the [CORREL+CPR] constituent is systematically adjoined to IP, never substituted for SpecCP.

This is interesting in light of our discussion earlier in this section of the constraints imposed by the PUB in (29) on long-distance dependencies. Since successive-cyclic long-distance dependencies involving movement through SpecCP into an IP–adjoined position fail to comply with the PUB, we expect them to be ruled out by the grammar. In root contexts, we have so far found a significant amount of support for this prediction. What are our expectations for *embedded* comparative correlatives? With [CORREL+CPR] consistently adjoining to IP, we predict that it should be entirely unable to move successive-cyclically. Thus, if extraction from a finite CP is to proceed successive-cyclically, it is predicted that long-distance dependencies should generally degrade, for both *hoe*+CPR and *des te*+CPR, in the *head*clause of a comparative correlative when the construction as a whole is itself embedded; but there should be no effect of embedding on long-distance dependencies established in the *relative* clause (which will always be a CP, regardless of the structural environment in which the construction as a whole appears).

Concretely, then, what we may expect to find is that the sentences in (40b–e) should be significantly worse than both (40a) and the corresponding sentences in (39b–e); but that the sentences in (41b–e) should be no worse than their counterparts in (41a) and (39b–e).[22]

(39) a. hoe meer je leest, hoe minder je begrijpt
how more you read how less you understand
b. men zegt vaak dat hoe meer je leest, hoe minder je begrijpt
one says often that how more you read how less you understand
c. ik ben ervan overtuigd dat hoe meer je leest, hoe minder je begrijpt
I am thereof convinced that how more you read how less you understand
d. het is alsof hoe meer je leest, hoe minder je begrijpt
it is as-if how more you read how less you understand
e. omdat hoe meer je leest, hoe minder je begrijpt
because how more you read how less you understand

(40) a. hoe meer je leest, hoe minder <u>je denkt dat</u> je begrijpt
how more you read how less you think that you understand
b. men zegt vaak dat hoe meer je leest, hoe minder <u>je denkt dat</u> je begrijpt
c. ik ben ervan overtuigd dat hoe meer je leest, hoe minder <u>je denkt dat</u> je begrijpt
d. het is alsof hoe meer je leest, hoe minder <u>je denkt dat</u> je begrijpt
e. omdat hoe meer je leest, hoe minder <u>je denkt dat</u> je begrijpt

22 The glossing of the examples in (40) and (41) is kept to a minimum to save space — the only difference between (39) and (40) is the underlined portion of (39), glossed as in (40a); and in (41) the glosses for all the ingredients of the b–e sentences can be found in either in the gloss for (42a) or in (39).

(42) a. hoe meer je denkt dat je begrijpt, hoe minder je in feite begrijpt
how more you think that you understand how less you in fact understand
b. men zegt vaak dat hoe meer je denkt dat je begrijpt, hoe minder je in feite begrijpt
c. ik ben ervan overtuigd dat hoe meer je denkt dat je begrijpt, hoe minder je in feite begrijpt
d. het is alsof hoe meer je denkt dat je begrijpt, hoe minder je in feite begrijpt
e. omdat hoe meer je denkt dat je begrijpt, hoe minder je in feite begrijpt

This is something that I have not yet tested in any systematic way. Sentences of the type in (40b–e) and (41b–e) were not part of the questionnaire on which I based the discussion in the previous subsections. For what they are worth, my own intuitions suggest that there is indeed an effect of the expected sort, with (40b–e) degraded compared to all other examples. But verifying the possible prediction regarding the embeddability of comparative correlatives featuring a long-distance dependency in the headclause must be left as a topic for future investigation.

Let me add before closing this section that there is an important reason why I have phrased the discussion in the preceding paragraphs cautiously, in terms of *possible* predictions. The second paragraph of this section sets the tone for the rest of the discussion by tentatively basing itself on the premise that extraction from a finite CP proceeds successive-cyclically — a premise that is by no means a given. As we have seen in section 3.1, it seems that languages have at their disposal two ways of extracting material from an embedded finite CP, one making a stopover in SpecCP and the other involving direct movement across CP. The question of whether the prediction outlined in the preceding paragraphs regarding long-distance dependencies inside embedded comparative correlatives will indeed present itself depends directly on the question of whether the Dutch linguistic community uniformly avails itself of a successive-cyclic movement strategy when it comes to extraction out of a finite clause. At this point, therefore, it will be good to return to this latter question, which is the topic of section 4.

4 On successive cyclicity

At the outset of the discussion in section 3, I pointed out that there is evidence, in the languages of the world, for successive-cyclic extraction from finite embedded clauses via the edge of CP, but that there are also good reasons to believe that extraction from finite CPs does not necessarily always proceed successive-cyclically. My analysis of the Hungarian facts in (26) and (27) in Den Dikken (2006) indicates that the two extraction scenarios in (28a) and (28b), repeated below, can be present side by side within one language, the two giving rise to different surface outputs.

(28) a. XP_i ... $[_{VP}$ V $[_{CP}$ t_i' $[_{C'}$ C $[_{TP}$ (...) t_i (...)]]]]
b. XP_i ... $[_{VP}$ V $[_{CP}$ C $[_{TP}$ (...) t_i (...)]]]

I have cast my discussion of the locality sensitivity of A′–dependencies in the Dutch comparative correlative entirely in the mould of (28a). We have seen that (28a), combined with the PUB in (29) and specific assumptions regarding the landing-site of the fronted [(COR)REL+CPR] constituent, makes a number of detailed and largely correct predictions in this empirical domain. It therefore seems entirely plausible that (28a) *is* indeed exploited in the analysis of comparative correlatives — at least by the speakers for whom we have found the kind of selective locality sensitivity involving (some of) the factors in (10). For speakers showing no locality sensitivity whatsoever (outside island contexts, of course) in the comparative correlative, I have assumed up to this point that they systematically substitute the fronted comparative for SpecCP in both constituent clauses. There is another possibility, however: such speakers could also be users of (28b), which (outside island contexts) will deliver no PUB-induced sensitivity to the final landing-site of the raised comparative. So how do we find out whether (28a) or (28b) is employed?

It is likely that we can independently determine the selection of (28a) or (28b) based on agreement. For Rackowski & Richards (2005), who argue for (28b) on the basis of the facts of A′–extraction out of finite CPs in Tagalog, the C–head of the embedded clause in a case of long-distance A′–dependency does not need to (and in fact probably does not) Agree with the extracted constituent: the matrix verb first Agrees with the embedded CP as a whole, after which this CP is 'opened up' (thanks to the Principle of Minimal Compliance) so that the verb can establish a second Agree relationship with the constituent that is to extract from CP; the C–head does not mediate the extraction process in any way. By contrast, in a 'classic' successive-cyclic movement derivation *à la* (28a), the embedded C must engage in an Agree relationship with the extractee: satisfaction of C's 'EPP property' by raising of the extractee into SpecCP is contingent upon the prior establishment of an Agree relationship between the bearer of the 'EPP property' (C) and the extractee. We thus derive the following conclusion:

(43) a. Agree between C and the extractee is required in (28a)
b. Agree between C and the extractee is not required, and perhaps blocked, in (28b)

On a strong reading of (43b) (with 'blocked' in lieu of 'not required'), this gives us a correlation between successive-cyclic extraction and complementiser agreement such that whenever there is morphophonologically manifest complementiser agreement, there is successive-cyclic extraction through SpecCP. (The correlation does not hold in the other direction because it is entirely possible that in the absence of morphophonological evidence for successive-cyclic passage through SpecCP (i.e., lack of overt complementiser agreement), there still is movement through this position: morphological agreement paradigms often contain gaps; null morphology (i.e., morphology with a zero phonological exponent) should certainly be countenanced by the theory.)

If this way of looking at the world is on the right track, one might expect, in connection with the cases under investigation in this paper, that whenever a variety of Dutch presents overt evidence for successive-cyclic extraction (in the form of complementiser agreement), that variety should show selective locality sensitivity effects of the types discussed in section 3. Varieties, on the other hand, which show no overt evidence for successive cyclicity could in principle be entirely impervious to depth of embedding (islands aside, as before): even with the fronted comparative adjoining to IP, such varieties could construct long-distance dependencies across a CP–boundary without violating the PUB in (29), exploiting (28b).

Research in this area is still in the exploratory phase. In particular, it is not clear at this time exactly what the variation among speakers of Dutch with respect to long-distance dependencies in comparative correlatives is correlated with. But it is certainly interesting that all of my Flemish informants have seen their judgements land within the ballpark of selective locality sensitivity (GROUP IV in the appendix, section A.4) — this is interesting because Flemish varieties of Dutch are very well known for their complementiser agreement. Complementiser agreement is not in any way confined to Flemish varieties, however: it is found elsewhere in the Dutch-speaking world as well.[23] Successive cyclicity should not be confined to Flanders, therefore; and indeed, several of my Northern Dutch informants (myself included) show selective locality sensitivity as well. Speakers who show such locality sensitivity do not necessarily have to exhibit *overt* morphological complementiser agreement: such agreement may be morphophonologically abstract. But in the other direction, one *would* reasonably expect, in light of the above line of thought, that there will be a correlation: speakers who have overt morphological complementiser agreement will show selective locality sensitivity. Verifying this is something that remains to be done on a systematic basis. So far the signs are good, as I indicated above, but that is all that can be said at this stage.

23 In the Netherlands, complementiser agreement is found, for instance, in the varieties spoken in Katwijk (on the west coast), Aalten (in the east, near the border with Germany) and in Friesland (in the north). I refer the reader interested in complementiser agreement, its geographical distribution across the Dutch-speaking world , and its analysis in the minimalist theory of syntax to Van Koppen (2005), where references to the key literature are also provided.

5 Concluding remarks

Comparative correlatives are 'peripheral' constructions that do not carry their syntactic analysis on their sleeve. Prying open their secrets is like opening up a Pandora's box chock full of mysterious surprises whose existence one would never have suspected. The central topic of this paper, the locality restrictions on the A′–dependencies involving the fronted comparative in the two constituent clauses of the Dutch comparative correlative, is a perfect collection of such *prima facie* mysterious surprises. What is interesting, and in fact very revealing, however, is that these mysteries start to unravel very quickly once one puts into place an analysis of the comparative correlative built on the principles of Universal Grammar. By adopting the structures in (15), which are supported on the basis of both universal syntactic principles and language-particular but independently empirically verifiable properties, the restrictions on long-distance dependencies in the relative clause and the headclause of the Dutch comparative correlative readily translate into effects of *(i)* the Principle of Unambiguous Binding (a UG principle proposed on entirely independent grounds by Müller & Sternefeld 1993), *(ii)* a parameter determining whether or not extraction out of CP proceeds via a stopover in SpecCP (see (28a,b)), and *(iii)* microscopic lexical properties of the relative and correlative particles employed, plus a small residue of what appear to be mostly stylistic or register-based idiosyncrasies (which, interestingly, can be related to similar stylistic or register-based idiosyncrasies found in Hungarian — these, then, arguably are not truly idiosyncratic either; but our present state of knowledge does not allow us to say much more about them at this time).

One assumption that I resorted to in order to get the facts under control is apparently specific to the construction under investigation: the condition in (14), which (in a somewhat more broadly formulated form) says that the correlative particle and the relative clause must be adjacent. This condition arguably holds for (simple) correlative constructions generally, at least at some level of analysis — Bhatt's (2003) careful discussion of correlatives reaches the conclusion that 'the Correlative Clause [must be] Merged as locally as possible with the objects which it is *associated with*' (p. 525; original italics). For simple correlatives in languages like Hindi, this means (according to Bhatt) that the correlative clause is merged directly with the projection of the correlative particle (hence is adjacent to the correlative particle *in the base*), and then raises to an IP–adjoined position (so that, on the surface, the sentence-initial relative clause and the sentence-internal correlative particle need not be adjacent). For comparative correlatives in languages like Dutch, on the other hand, where the relative clause is presumably base-generated in (not moved into) an IP– or CP–adjoined position, Bhatt's conclusion entails that the relative clause must be *surface*-adjacent to the correlative particle.[24] Either way, correlative constructions cross-linguistically satisfy the condition that the correlative particle be adjacent to the relative clause. Bhatt (2003:section 5) argues that a condition of this sort can actually be derived from conditions on Merge, the syntactic structure-building mechanism. If a reduction of a condition of the type in (14) to general UG principles along Bhatt's lines is ultimately successful, we can conclude that *all* of the apparent mysteries of the Dutch comparative correlative in the domain of locality reduce to a combination of UG principles, parameters, and language-specific lexical idiosyncrasies — precisely the expected result from the point of view of standard principles-and-parameters theory.

24 Placing the constituent formed by the correlative particle and the comparative in sentence-internal position (in the 'Mittelfeld') in the headclause is possible to some extent for a few speakers (myself included), but as the appendix shows, the overwhelming majority of Dutch speakers robustly reject comparative correlatives with non-fronted [CORREL+CPR]. (To see this, the interested reader should inspect examples (#6) and (#0) in each of the sets of ten example sentences in the appendix.)

Appendix: Questionnaire and speaker judgements

A.1 Background

The questionnaire used for this study included fifty sentences, all comparative correlatives, arranged into five sets of ten, each with the same internal organisation. The full list of sentences is given below, in the order in which they were presented to the participants in the questionnaire. (Glosses are added here for the benefit of readers unfamiliar with Dutch.) No attempt was made to randomise the order of presentation of the test sentences: from the nature of the stimuli, it would be eminently clear to all participants (all professional syntacticians) that locality was one of the key issues that this questionnaire was trying to probe into. Items (#6) and (#0) in each set, involving *in situ* comparatives in the headclause, served as filler items: this study was not particularly concerned with the distribution of *in situ* placement of the comparative in the headclause — future research should look into this further: the pattern exists, and for some speakers it is even available in long-distance contexts;[25] but a large majority of my informants found the pattern to be entirely impossible.

25 No examples of *in situ* CORREL+CPR were found on the web (using Google). Though I did not specifically search for *in situ* CORREL+CPR, it is interesting that as part of my search for embedded comparative correlatives I found several unmistakable instances of *in situ* CORREL+CPR. I reproduce them below. I personally find *in situ* CORREL+CPR generally grammatical though somewhat marginal; some of the examples below I would not accept myself, however.

(i) tegelijkertijd besef ik dat hoe meer je weet je ook minder gaat weten
at.the.same.time realise I that how more you know you also less go know
[www.nvtl.nl/dagblad/dagblad0202_wurff.html]

(ii) daarnaast is het waar dat hoe meer de overheid supporters behandelt als collectiviteit,
there-beside is it true that how more the government supporters treats as collectivity
zo'n groep zich ook des te meer als collectiviteit gaat gedragen
such-a group REFL also the-GEN DEG more as collectivity goes behave
[gevaarbeheersing.homestead.com/terugsturen.html]

(iii) bedenk wel dat hoe meer je naar de kant van het laagst toegaat
BE-think DPRT that how more you to the side of the lowest PRT-go
je foto ook steeds minder in kwaliteit wordt
your photo also gradually less in quality becomes
[www.bouvierforum.nl/irfanview/index.html]

(iv) denk eraan dat des te hoger je ramp wordt je ook meer aandacht besteed [*sic*]
think thereof that the-GEN DEG higher your ramp becomes you also more attention pay
aan de kracht van het platform en een hekje of zoiets
to the power of the platform and a fence of something.like.that
[www.skateboardfederatie.nl/rampplans.htm]

(v) daarom geldt dat hoe meer groene elektriciteit er wordt gevraagd door de consument,
therefore holds that how more green electricity there is demanded by the consumer
er des te meer geïnvesteerd wordt in nieuwe installaties voor groene elektriciteit
there the-GEN DEG more invested is in new installations for green electricity
en hoe minder milieuonvriendelijkere grijze elektriciteit er geproduceerd hoeft te worden
[www.kiesenergie.nl/energiewijzer/ pdf/Energiewijzer5_GroeneGrijzeElektriciteit.pdf]

(vi) omdat, hoe meer de mens aan de goederen van deze aarde hecht,
because how more the man to the goods of this earth attaches
hij des te minder zijne bestemming begrijpt
he the-GEN DEG less his destination understands
[http://www.allankardec.nl/holandes/boeken/geest/bg312.htm]
[from Allan Kardec, *Het boek der geesten*, 1857, translated from the original French by J.G. Plate, 1875]

(vii) omdat hoe meer verdrukking zij hebben, zij des te meer graden van heerlijkheid
because how more repression they have they the-GEN DEG more degrees of divinity
zullen hebben;
will have
[www.theologienet.nl/documenten/Watson_10_%20geboden.rtf]
[in the Dutch translation of Thomas Watson's 1692 *A Body of Practical Divinity*]

A.2 Systematic pattern

(#1)	[$_{\text{RELCL}}$ *hoe*+CPR ...]	[$_{\text{HEADCL}}$ *hoe*+CPR ... ... V]
(#2)	[$_{\text{RELCL}}$ *hoe*+CPR ...]	[$_{\text{HEADCL}}$ *hoe*+CPR *dat* ... V]
(#3)	[$_{\text{RELCL}}$ *hoe*+CPR ...]	[$_{\text{HEADCL}}$ *des te*+CPR ... ... V]
(#4)	[$_{\text{RELCL}}$ *hoe*+CPR ...]	[$_{\text{HEADCL}}$ *des te*+CPR *dat* ... V]
(#5)	[$_{\text{RELCL}}$ *hoe*+CPR ...]	[$_{\text{HEADCL}}$ *des te*+CPR V ... ...]
(#6)	[$_{\text{RELCL}}$ *hoe*+CPR ...]	[$_{\text{HEADCL}}$ SU V ... *des te*+CPR]
(#7)	[$_{\text{RELCL}}$ *des te*+CPR ...]	[$_{\text{HEADCL}}$ *des te*+CPR ... ... V]
(#8)	[$_{\text{RELCL}}$ *des te*+CPR ...]	[$_{\text{HEADCL}}$ *des te*+CPR *dat* ... V]
(#9)	[$_{\text{RELCL}}$ *des te*+CPR ...]	[$_{\text{HEADCL}}$ *des te*+CPR V ... ...]
(#0)	[$_{\text{RELCL}}$ *des te*+CPR ...]	[$_{\text{HEADCL}}$ SU V ... *des te*+CPR]

A.3 Test sentences

A.3.1 Set 0: The baseline cases

(01)	hoe meer je leest, hoe minder je begrijpt	
	how more you read how less you understand	
(02)	hoe meer je leest, hoe minder dat je begrijpt	
	how more you read how less that you understand	
(03)	hoe meer je leest, des te minder je begrijpt	
	how more you read the-GEN DEG less you understand	
(04)	hoe meer je leest, des te minder dat je begrijpt	
	how more you read the-GEN DEG less that you understand	
(05)	hoe meer je leest, des te minder begrijp je	
	how more you read the-GEN DEG less understand you	
(06)	hoe meer je leest, je begrijpt des te minder	
	how more you read you understand the-GEN DEG less	
(07)	des te meer je leest, des te minder je begrijpt	
	the-GEN DEG more you read the-GEN DEG less you understand	
(08)	des te meer je leest, des te minder dat je begrijpt	
	the-GEN DEG more you read the-GEN DEG less that you understand	
(09)	des te meer je leest, des te minder begrijp je	
	the-GEN DEG more you read the-GEN DEG less understand you	
(10)	des te meer je leest, je begrijpt des te minder	
	the-GEN DEG more you read you understand the-GEN DEG less	

A.3.2 Set 1: Long-distance dependency in the relative clause; finite

(11)	hoe meer je denkt dat je begrijpt, hoe minder je in feite begrijpt
	how more you think that you understand how less you in fact understand
(12)	hoe meer je denkt dat je begrijpt, hoe minder dat je in feite begrijpt
(13)	hoe meer je denkt dat je begrijpt, des te minder je in feite begrijpt
(14)	hoe meer je denkt dat je begrijpt, des te minder dat je in feite begrijpt
(15)	hoe meer je denkt dat je begrijpt, des te minder begrijp je in feite
(16)	hoe meer je denkt dat je begrijpt, je begrijpt in feite des te minder
(17)	des te meer je denkt dat je begrijpt, des te minder je in feite begrijpt
(18)	des te meer je denkt dat je begrijpt, des te minder dat je in feite begrijpt
(19)	des te meer je denkt dat je begrijpt, des te minder begrijp je in feite
(20)	des te meer je denkt dat je begrijpt, je begrijpt in feite des te minder

A.3.3 Set 2: Long-distance dependency in the headclause; finite

(21) hoe meer je leest, hoe minder je denkt dat je begrijpt
how more you read how less you think that you understand
(22) hoe meer je leest, hoe minder dat je denkt dat je begrijpt
(23) hoe meer je leest, des te minder je denkt dat je begrijpt
(24) hoe meer je leest, des te minder dat je denkt dat je begrijpt
(25) hoe meer je leest, des te minder denk je dat je begrijpt
(26) hoe meer je leest, je denkt dat je des te minder begrijpt
(27) des te meer je leest, des te minder je denkt dat je begrijpt
(28) des te meer je leest, des te minder dat je denkt dat je begrijpt
(29) des te meer je leest, des te minder denk je dat je begrijpt
(30) des te meer je leest, je denkt dat je des te minder begrijpt

A.3.4 Set 3: Long-distance dependency in the relative clause; infinitival

(31) hoe meer je denkt te begrijpen, hoe minder je in feite begrijpt
how more you think to understand how less you in fact understand
(32) hoe meer je denkt te begrijpen, hoe minder dat je in feite begrijpt
(33) hoe meer je denkt te begrijpen, des te minder je in feite begrijpt
(34) hoe meer je denkt te begrijpen, des te minder dat je in feite begrijpt
(35) hoe meer je denkt te begrijpen, des te minder begrijp je in feite
(36) hoe meer je denkt te begrijpen, je begrijpt in feite des te minder
(37) des te meer je denkt te begrijpen, des te minder je in feite begrijpt
(38) des te meer je denkt te begrijpen, des te minder dat je in feite begrijpt
(39) des te meer je denkt te begrijpen, des te minder begrijp je in feite
(40) des te meer je denkt te begrijpen, je begrijpt in feite des te minder

A.3.5 Set 4: Long-distance dependency in the headclause; infinitival

(41) hoe meer je leest, hoe minder je denkt te begrijpen
how more you read how less you think to understand
(42) hoe meer je leest, hoe minder dat je denkt te begrijpen
(43) hoe meer je leest, des te minder je denkt te begrijpen
(44) hoe meer je leest, des te minder dat je denkt te begrijpen
(45) hoe meer je leest, des te minder denk je te begrijpen
(46) hoe meer je leest, je denkt des te minder te begrijpen
(47) des te meer je leest, des te minder je denkt te begrijpen
(48) des te meer je leest, des te minder dat je denkt te begrijpen
(49) des te meer je leest, des te minder denk je te begrijpen
(50) des te meer je leest, je denkt des te minder te begrijpen

A.4 Judgements

The table below brings together the judgements reported by the 17 native speakers who responded to my questionnaire. The respondents are set out along the horizontal axis; the test sentences are listed along the vertical axis. All numbers on the vertical axis correspond to the example numbers in A.3. The letters on the horizontal axis represent respondents (who will remain unidentified); the columns are arranged in such a way as to provide natural groupings, indicated at the bottom of the table. Significant effects of locality are highlighted with the aid of light red shading. The table is cut up into five speaker groups, characterised below.

TABLE 1

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
01	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
02	OK	OK	OK	?	OK	?	(?)	OK	?	OK	OK	OK	?	?	OK	*	*
03	OK	OK	OK	OK	?	??	(?)	OK	???	OK	?	OK	OK	OK	OK	*	*
04	OK	OK	?	??	?	?*	?	OK	???	OK	OK	OK	?	?	OK	ok?	*
05	OK	OK	OK	OK	OK	OK	*	OK	??	*	OK	OK	OK	??	OK	*	OK
06	OK	??	*	*	*	?*	**	*	*	*	OK	OK	*?	*	*	*	**
07	OK	OK	OK	OK	**	?*	??	*	???	??	OK	OK	?	OK	OK	*	*
08	OK	OK	OK	??	**	?*	???	*	???	?	OK	OK	??	?	OK	*	*
09	OK	OK	*	OK	*	*	*	*	??	??	OK	OK	?	?	OK	*	*
10	OK	??	*	*	**	*	**	*	*	*	*	OK	*	*	*	*	**
11	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	?	OK	OK	*
12	OK	OK	OK	OK	OK	?	(?)	OK	??	OK	OK	OK	?	?	OK	OK	*
13	OK	OK	OK	OK	?	??	(?)	OK	?	OK	?	OK	OK	?	OK	OK	*
14	OK	OK	OK	?	??	?*	?	OK	??	OK	OK	OK	?	?	?	?	*
15	OK	OK	OK	?	OK	OK	*	OK	??	*	OK	OK	OK	?*	OK	OK	*
16	OK	??	*	*	*	OK	**	*	*	*	OK	OK	*?	*	*	??	**
17	OK	OK	OK	OK	**	*	??	*	???	??	?	?	?	*	?	*	*
18	OK	OK	OK	?	**	*	???	*	???	?	OK	OK	??	*	?	*	*
19	OK	OK	OK	OK	**	*	?*	*	?	??	OK	?	?	*	?	*	*
20	OK	??	*	*	**	*	**	*	*	*	*	?	??	*	*	*	*
21	OK	OK	OK	OK	OK	OK	OK	OK	?(?)	OK	OK	OK	?	?	*	?/*	*
22	OK	OK	OK	OK	OK	?	(?)	OK	?(?)	OK	OK	OK	??	?	*	*	*
23	OK	?	OK	OK	OK	??	(?)	OK	??	OK	*	*	?	*	*	*	*
24	OK	OK	OK	?	?	?*	?	OK	??	OK	?	?	??	*	*	*	*
25	OK	OK	OK	OK	*	?	(*)	OK	OK	?*	?	*	?*	*	*	*	*
26	OK	??	*	*	*	OK	*	*	*	*	*	OK	*	*	*	*	*
27	OK	OK	OK	OK	**	?*	?	*	?	?*	*	??	??	*	*	*	*
28	OK	OK	OK	?	**	*	??	*	??	??	?	OK	?*	*	*	*	*
29	OK	OK	OK	OK	**	*	*?	*	???	*	?	??	*	*	*	*	*
30	OK	*	*	*	**	**	*	*	*	*	*	OK	*	*	*	*	*

31	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	*
32	OK	OK	OK	?	OK	?	(?)	OK	??	OK	OK	OK	?	?	OK	OK	*
33	OK	OK	OK	OK	?	?*	(?)	OK	OK	OK	?	OK	OK	OK	OK	OK	*
34	OK	OK	OK	??	??	?*	?	OK	?	OK	OK	OK	?	?	OK	OK	*
35	OK	OK	OK	OK	*	OK	*	OK	?	?*	OK	OK	OK	?	OK	OK	*
36	OK	??	*	*	**	OK	**	*	*	*	OK	OK	?*	*	*	*	*
37	OK	OK	OK	OK	**	*	?	*	??	??	?	OK	?	OK	OK	*	*
38	OK	OK	OK	?	**	*	??	*	???	?*	OK	OK	??	?	OK	*	*
39	OK	OK	OK	OK	**	*	*	*	?(?)	*	OK	OK	?	?	OK	*	*
40	OK	*	*	*	**	*	**	*	*	*	*	OK	?	*	*	*	*
41	OK	OK	OK	OK	OK	OK	OK	OK	?	OK	OK	OK	OK	OK	OK	?/*	NB
42	OK	OK	OK	??	OK	?	(?)	OK	?	OK	OK	OK	?	?	OK	*	*
43	OK	?	OK	?	?	??	(?)	OK	?(?)	OK	?	OK	OK	OK	OK	*	NB
44	OK	OK	OK	??	??	?*	?	ok?	?(?)	OK	?	OK	?	?	OK	*	*
45	OK	OK	OK	OK	*	OK	*	OK	(?)	?*	OK	OK	?	??	OK	*	NB
46	OK	??	*	*	**	OK	**	*	*	*	???	OK	*	*	*	*	*
47	OK	OK	OK	OK	**	?*	?	*	??	??	?	OK	?	OK	OK	*	*
48	OK	OK	OK	OK	**	*	??	*	???	?	OK	OK	??	?	OK	*	*
49	OK	OK	OK	OK	**	*	*	*	OK	??	OK	OK	?	??	OK	*	*
50	OK	*	*	*	**	*	**	*	???	*	*	??	*	*	*	*	*
		I		II		III			IV					V			

GROUP I — no distinctions of any kind: all fifty sentences are acceptable

GROUP II — with the exception of (#6) and (#0), all sentences are generally acceptable or at least passable

GROUP III — *des te*+CPR is generally rejected in the relative clause (cf. (#7)–(#0)); some speakers of GROUP IV and both speakers of GROUP V have an effect of this type as well, but in addition, these speakers make further distictions not made by GROUP III speakers

GROUP IV — long-distance dependencies in the headclause, and for some to some extent also in the relative clause are impossible or degraded, especially with *des te*+CPR but for some also with *hoe*+CPR; this locality effect manifests itself *only* in *finite* contexts: there are no corresponding degrations in (31)–(50), and for some speakers there is an effect of word order as well

GROUP V — degradation of long-distance dependencies with *hoe*+CPR in both finite and non-finite contexts (for speaker R in both the headclause and the relative clause, and for speaker Q primarily in the headclause only)

NB *re*: R — Speaker R did not judge the examples in (41)–(50) as given but substituted *hoe meer/minder* and *des te meer/minder* with *hoe meer/minder boeken* 'the more/less books' and *des te meer/minder boeken* 'the-GEN DEG more/less books', indicating that (41), (43) and (45) become marginal ('?') under such circumstances (and tacitly implicating that, in their given forms, the examples in (41), (43) and (45) are unacceptable).

Acknowledgements

I am very grateful to Anikó Lipták for giving me the opportunity to publish this piece in the present volume, and for important discussion of some of the questions addressed in this paper. In addition, I owe a huge debt of gratitude to the many colleagues who returned the questionnaire I sent them — in alphabetical order: Bas Aarts, Peter Ackema, Sjef Barbiers, Hans Broekhuis, Peter-Arno Coppen, Jeroen van Craenenbroeck, Liliane Haegeman, Jack Hoeksema, Eric Hoekstra, Hilda Koopman, Jan Koster, Ad Neeleman, Gertjan Postma, Henk van Riemsdijk, Guido Vanden Wyngaerd, and Jan-Wouter Zwart.

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first version • July 2006

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