

# Correlative Adverbs in Germanic Languages<sup>1</sup>

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## 1. Introduction

This paper focuses on correlative words like *either*, *both* and *neither*. Schwarz (1999) and Larson (1985) give an account of some of them (mainly *either*) in terms of reduction and movement, respectively. I shall show their theories, as they stand, cannot account for data from Germanic languages, and further, that there is evidence for Hendriks's (2002, 2001a, 2001b) idea that correlatives are focus particles.

I shall present a syntactic analysis which includes both overt movement and covert movement (akin to QR), inspired by Larson (1985) as well as Bayer (1996). Included in the paper will also be a presentation of differences between correlatives with respect to V2 in and across languages.

## 2. Background

Larson's (1985) movement theory suggests that whenever *either* occurs in a position other than next to (just to the left of) the conjuncts, movement has taken place:

(1) John *either*<sub>i</sub> ate t<sub>i</sub> [<sub>NP</sub> rice] or [<sub>NP</sub> beans]

(2) *Either*<sub>i</sub> John ate t<sub>i</sub> [<sub>NP</sub> rice] or [<sub>NP</sub> beans]

Schwarz's (1999) reduction theory suggests, on the other hand, that whenever the word *either* occurs, it is situated exactly next to the conjuncts. So, if there seems to be material between *either* and the conjuncts, this is just apparent. Instead the conjuncts are bigger than they seem, but with material that has been deleted:

(3) John *either* [<sub>VP</sub> ate rice] or [<sub>VP</sub> ate beans]

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- (4) *Either* [<sub>IP</sub> John ate rice] or [<sub>IP</sub> ~~John~~ ate beans]

In the next section, we shall see that both these approaches are too simple to account for crucial data from Germanic languages.

Unlike the two authors mentioned, I shall include *both* and *either* (and their equivalents in different languages) in this paper as well, since they have a lot in common. In the literature, these words have had many different names: conjunctions, discontinuous conjunctions, adverbs etc. Here, we shall follow Quirk et al (1976) and call them correlatives.

There do seem to be three basic, semantically distinguishable pairs: *either-or*, *neither-nor* and *both-and*.

- (5) Type I: either-or:  $X \vee Y$   
 Type II: both-and:  $X \wedge Y$   
 Type III: neither-nor:  $\neg X \wedge \neg Y$

Some languages have more pairs, but they seem to fit semantically into the above three, even though they may have syntactic properties that separate them. For example, Swedish has *antingen-eller*, *båda-och* and *varken-eller*, corresponding to the three pairs above, but has in addition a version of *varken-eller* used in a negative context: *vare sig-eller*. (The closely related Norwegian and Danish do not.)

### 3. Empirical problems with Schwarz's and Larson's theories

Both Schwarz's reduction theory and Larson's movement theory take it for granted that certain conditions are met. In short, for both theories, it is necessary for the correlative to be in a position that is to the left of its conjunction phrase (ConjP), as in (1)-(4), i.e. with a structure like this:

- (6) ... Correlative ... [<sub>ConjP</sub> Conjunct Conjunction Conjunct]

However, it is not always the case that the correlative sits in just these configurations. Larson presents this sentence as a possible problem:

- (7) [Mary *either* is driving to the airport] or [she is taking a cab].  
 (Larson 1985:235)

The structure of the sentence, which seems to be IP coordination with a correlative in the first conjunct, would be:

- (8) [<sub>ConjP</sub> [<sub>IP</sub> ... Correlative... ] Conj [<sub>IP</sub> ... ]]

This makes a movement as well as a reduction analysis much less straightforward (see also Hendriks 2001b:3 on this point). Thus, if the correlative is inside a conjunct, it cannot be the case that the whole conjunction phrase is on its right-hand side (as Schwarz claims). Neither can it be the case that the correlative has started out on the left-hand side of the conjunction phrase (ConjP) and then moved (as Larson claims), since that would mean rightward movement – something that has generally avoided in recent years, since it constrains the possible derivations one would otherwise get.

Larson defends his analysis by saying that what we really see in (7) is not IP coordination with a full subject, but rather VP coordination, since the subject of the second conjunct is just a variable, with the same reference as that of the first conjunct. However, Hendriks shows that the two conjunct clauses can be completely independent of each other:

- (9) Yet [our invitation was *either* a complete hoax [...]]  
 or [else we had good reason to think that important issues might hang upon our journey].

(Hendriks 2002)

For the record, such examples can easily be found in other languages, too:

*Norwegian:*

- (10) Dermed ble det til [at vi *enten* måtte kjøpe avisen],  
 eller [at den trolig ville dø] [...]  
*thus became it to that we either had-to buy the-newspaper, or that it possibly would die*  
 ‘Thus it ended up with us either having to buy the newspaper or that it would probably die.’

(The Oslo Corpus of Tagged, Norwegian Texts)

Furthermore, in many V2 languages, the correlative (unlike conjunctions and subjunctives) actually triggers V2; a correlative in sentence-initial position will occupy the position otherwise taken by the subject (or any other topicalized constituent), causing the word order of the two conjuncts to be different: in the first conjunct it will be correlative-verb-subject, and in the second conjunct subject-verb. This is the case in the Scandinavian languages Norwegian, Danish and Icelandic, as well as in German. In these languages, it is clear, then, that the correlative is inside the first conjunct, since there is no parallel effect in the second conjunct:

*Norwegian:*

- (11) [*Enten* bærer den mat til fuglene], eller [den bærer snø.]  
*either carries it food to the-birds or it carries snow*  
 ‘Either it carries food to the birds, or it carries snow.’  
 (The Oslo Corpus of Tagged, Norwegian Texts)

*Danish:*

- (12) *Enten* må du fjerne den gulerod fra blomsterdekorationen,  
 eller jeg rødmer.  
*either must you remove that carrot from the-flower-arrangement*  
*or I blush*  
 ‘Either you remove that carrot from the flower arrangement or I’ll  
 blush.’  
 (Allan et al. 1995:460)

*Icelandic:*

- (13) [*Annaðhvort* hefur Petur erfð peninga] eða [Páll hefur unnið i  
 happdrætti]  
*either has Peter inherited money or Paul has won in lottery*  
 ‘Either Peter has inherited money or Paul has won in the lottery.’  
 (Kjartan Ottósson, p.c.)

*German:*

- (14) [*Entweder* kocht Hans heute] oder [Maria ruft den Pizzaservice]  
*either cooks Hans today or Maria calls the Pizzaservice*  
 ‘Either Hans cooks today or Maria calls the Pizzaservice.’  
 (Wesche 1995:(145a))

These facts show that a simple reduction or movement theory hits problems.

#### **4. The correlatives are focus particles**

Johannessen (1998) analysed correlatives as adverbs of the conjunction phrase ("CoP adverbs"), but this analysis was too imprecise. Hendriks (2002, 2001a, 2001b) shows that the correlatives *either* (restrictive) *both* (additive) and *neither* (restrictive) are focus particles - they have a lot in common with traditional focus particles, such as *only*, *too*, *also*, i.e. words that introduce alternatives or quantify over a set of alternatives.

Like focus particles, the correlatives must c-command the phrase they focus, and the focused phrase must be stressed:

- (15) a. Either JANE ate rice or JOHN.  
 b. \* JANE either ate rice or JOHN.  
 (Hendriks 2001b:2.2)

Like focus particles, correlatives may occur removed from the phrase they focus on.

- (16) Jane *either* ate [rice or beans].  
 (Hendriks 2001b:2.1)

- (17) These circumstances proved fortunate *both* for [myself] and [Augustus].  
 (Hendriks 2001b:3.1)

- (18) [The gale had *neither* abated in the least] nor [were there any signs of its abating]  
 (Hendriks 2001b:4.1)

Scope effects varying with syntactic position are also something that correlatives and focus particles have in common. (19a) is ambiguous between a strict reading and a weak reading (prohibiting or allowing, respectively, the studying of something else, as well, such as phonology), while (19b) only has the strict reading. (See the possible expansions of these sentences in (19a'-b'.))

- (19) a. We are required to study *either* [<sub>DP</sub> syntax or semantics]  
 b. We are required to *either* [<sub>VP</sub> study syntax or semantics]  
 (Hendriks 2001b:2.4)

- (19) a'. ... and can choose phonology or anything else in addition.  
 b'. ... and can study nothing else this term.

Hendriks also finds that correlatives can only be attached to maximal phrases (DP, AP, PP etc.), in line with what Bayer (1996) says about focus particles.

*Constraints on ConjP category (must be maximal?):*

- (20) a. \*a small *either* bus or car  
 b. \*very *either* red or blue  
 (Hendriks 2001b:2.3)

There are apparent counter-examples, like (21)-(22)) (as there are for focus particles in Bayer (1996:X))<sup>2</sup>, but these can be dispensed with if we accept maximal projections within DP:

- (21) that offers room for a *both* [critical and enthusiastic] examination and discussion

(www.crac.org/katalog/)

- (22) Han fikk snart erfare at det var  
*he got soon experience that it was*  
 en både [slitsom og ugrei og rotete] jobb ...  
*a both tiresome and difficult and chaotic job*  
 ‘He soon got to find out that it was a both tiresome, difficult and chaotic job ...’

(The Oslo Corpus)

There are more similarities. Bayer (1996:53) characterises some positions for focus particles as more marked than others. *V even DP* and *P even DP* are two such cases, as opposed to the unmarked cases where *even* is VP-initial:

- (23) John will talk to *even* Alceste

- (24) John invited *even* Alceste

(Bayer 1996:51-2)

- (25) John will *even* talk to Alceste

- (26) John will *even* invite Alceste

(Bayer 1996:53)

Again, there is a parallellism with correlatives. They have the same marked, (27)-(28), and unmarked, (29)-(30), positions:

- (27) John will talk to *either* [<sub>ConjP[DP]</sub> Alceste or Arienne]

- (28) John invited *either* [<sub>ConjP[DP]</sub> Alceste or Arienne]

<sup>2</sup> Bayer gives e.g. the following example:

- (i) [V nur [V geliehen]] hat er mir das Buch  
 only lent has he me the book

(Bayer 1996:11)

(29) John will *either* [<sub>VP</sub> talk to Alceste or Arienne]

(30) John will *either* [<sub>VP</sub> invite Alceste or Arienne]

Also, there is a (poorly understood) prohibition against sentence-initial focus particles in English and German (Bayer 1996:13), just as there is against some correlatives in those and many other languages.

(31) \* Even John gave his daughter a new BICYCLE  
(Bayer 1996:13)

(32) \* Sogar Hans gab seiner Tochter ein neues FAHRRAD  
(Bayer 1996:22)

(33) \**Both* [<sub>ConjP[CP]</sub> John has a daughter and Hans has a son].

Bayer furthermore shows that there are acceptable instances of focus-particles inside non-V projections, but with the proviso that the focused word must follow immediately after the particle:

(34) a. Peter gilt as *nur* MÄSSIG intelligent  
*Peter counts as only moderately intelligent*  
b. \* Peter gilt as *nur* mässig INTELLIGENT  
(Bayer 1996:23)

The same distribution can be seen with correlatives:

(35) a. Peter teller som *enten* MODERAT eller SVÆRT intelligent  
*Peter counts as either moderately or very intelligent*  
b. \*Peter teller som *enten* moderat [INTELLIGENT eller SKOLEFLINK]

We can conclude that the strong similarities between correlatives and well-known focus particles indicate that correlatives actually are focus particles.

### 5. Differences with respect to V2 effects

We have established that correlatives are focus particles. But are focus particles a separate part of speech or are they adverbs? It is easy to explore this in V2 languages, since one obvious property of adverbs is that when sentence initial, they trigger subject-verb inversion. Below, we see that focus particles behave exactly like other adverbs in this respect:

*Norwegian, V2 effect with time adverbial and with focus particle:*

- (36) a. *I dag har jenta gått til skolen*  
*today has the.girl walked to the.school*  
 ‘Today, the girl has walked to school.’  
 b. *Til og med har jenta GÅTT til skolen*  
*even has the.girl walked to the.school*  
 ‘The girl has even walked to school.’

In section 3 above, we saw some examples of correlatives that trigger inversion. Below is a fuller survey, showing more correlatives and more languages.<sup>3</sup> (Some of the examples below are repeated from above.)

*Norwegian:*

- (37) *Enten bærer den mat til fuglene, eller den bærer snø.*  
*either carries it food to the-birds or it carries snow*  
 ‘Either it carries food to the birds, or it carries snow.’  
 (The Oslo Corpus of Tagged, Norwegian Texts)

- (38) *Både gikk Per til jobben, og Marit tok trikken til skolen*  
*both walked Peter to the.work and Mary took the.tram to the.school*  
 ‘It is both the case that Peter walked to work and that Mary took the tram to school.’  
 (Johannessen 1998:84b)

- (39) *Verken gikk Per til jobben eller tok Marit trikken til skolen*<sup>4</sup>  
*neither walked Peter to the.work or took Mary the.tram to the.school*  
 ‘It is neither the case that Peter walked to work nor that Mary took the tram to school.’

<sup>3</sup> Interestingly, there are also differences between different correlatives in different languages. For example, in Swedish, Danish and German, type II-correlatives (the ‘both-and’ type) cannot occur sentence-initially. In Swedish, Danish and Dutch, the type III-correlatives (‘neither-nor’) cannot occur in that position.

<sup>4</sup> In Johannessen (1998), a different word-order is suggested for the second conjunct (the same as that for the *enten-eller* pair). However, consulting a number of informants has presently convinced me that the word order is VS in both conjuncts, with the *verken-eller* pair.

*Swedish:*

- (40) *Antingen får man då bättre betalt för vattenkraft  
either gets one then better paid for hydropower  
eller kan vi sälja mer från Finland.  
or can we sell more from Finland.*  
'Either one will get more money for the hydropower or we can sell more from Finland.'

(Parole-korpuset, Språkbanken)

*Danish:*

- (41) *Enten må du fjerne den gulerod fra blomsterdekorationen,  
either must you remove that carrot from the-flower-arrangement  
eller jeg rødmer.  
or I blush*  
'Either you remove that carrot from the flower arrangement or I'll blush.'

(Allan et al. 1995:460)

*Icelandic:*

- (42) *Annaðhvort hefur Petur erfð peninga  
either has Peter inherited money  
eða Páll hefur unnið i happdrætti  
or Paul has won in lottery*  
'Either Peter has inherited money or Paul has won in the lottery.'
- (43) *Bæði erfði Petur peninga og Páll vann i happdrætti  
both inherited Peter money and Paul won in lottery*  
'It is both the case that Peter inherited money and that Paul won in the lottery.'
- (44) *Hvorki erfði Petur peninga né vann Páll i happdrætti  
neither inherited Peter money nor won Paul in the lottery*  
'It is neither the case that Peter inherited money nor that Paul won in the lottery.'

(All Icelandic examples: Kjartan Ottósson, p.c.)

*German:*

- (45) *Entweder kocht Hans heute oder Maria ruft den Pizzaservice  
either cooks Hans today or Maria calls the Pizzaservice*  
'Either Hans cooks today or Maria calls the Pizzaservice.'

(Wesche 1995:(145a))

- (46) *Entweder* er liest ein Buch, oder er schreibt einen Brief.  
*either he reads a book or he writes a letter*  
 ‘Either he reads a book or he writes a letter.’  
 (Duden 1995:393)
- (47) *Weder* kocht Hans heute, noch ruft Maria den Pizzaservice.  
*neither cooks Hans today nor calls Maria the Pizzaservice*  
 ‘It is neither the case that Hans cooks today nor that Maria calls the Pizzaservice.’  
 (Wesche 1995)

*Dutch*<sup>5</sup>:

- (48) Of het regent, of het is koud  
*either it rains or it is cold*  
 ‘Either it is raining, or it is cold.’
- (49) Ofwel het regent, of wel het is koud  
*either it rains or it is cold*  
 ‘Either it is raining, or it is cold.’
- (50) Ofwel regent het, ofwel is het koud  
*either rains it or is it cold*  
 ‘Either it is raining, or it is cold.’  
 (The above three examples: Petra Hendriks, p.c.)
- (51) Ofwel regent het, ofwel het is koud  
*either rains it or it is cold*  
 ‘Either it is raining, or it is cold.’  
 (Paul Piwek and Kees van Deemter)
- (52) En het regent, en het is koud  
*both it rains and it is cold*  
 ‘It is both the case that it rains and that it is cold.’  
 (Petra Hendriks, p.c.)

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<sup>5</sup> The intuitions on Dutch seem to vary. Two of the informants cannot accept verb-subject order in the second conjunct at all, but they do accept it in the first conjunct only (I’m grateful to David Tugwell for this information), while one informant, Laura Stefanussen, can only accept subject-verb order in both conjuncts, and furthermore, only the correlative *of*, i.e., only the very first example sentence.

(53) *V2 effect or not in the V2 languages:*

<b>Language</b>	<b>No V2 triggered in any conjunct</b>	<b>V2 triggered in first conjunct only</b>	<b>V2 triggered in both conjuncts</b>
<b>Norwegian</b>			
I enten-eller		x	
II både-og		x	
III verken-eller			x
<b>Swedish</b>			
I antingen-eller			x
<b>Danish</b>			
I enten-eller		x	
<b>Icelandic</b>			
I annaðhvort-eða		x	
II bæði -og		x	
III hvorki-né			x
<b>German</b>			
I entweder-oder	x	x	
III weder-noch			x
<b>Dutch</b>			
I of-of	x	x	
I ofwel-ofwel	x	x	x
II en-en	x		

We see from the table that in all the four Scandinavian languages, the correlatives trigger inversion in at least the first conjunct, while German and Dutch are the only languages that have correlatives that do not necessarily influence the word order of the conjuncts. Norwegian and Icelandic have the same distribution for all three types. Type I-correlatives ('either-or') in the Scandinavian languages have obligatory inversion in at least the first conjunct, and German has facultative inversion. Swedish has inversion in both conjuncts, and Dutch has optional both-conjuncts inversion. Type II-correlatives are rare with sentential conjuncts - only Norwegian, Icelandic and Dutch have them - in the two Scandinavian languages, they trigger inversion with the first conjunct. Type III-correlatives are equally rare sentence-initially (Norwegian,

Icelandic and German), but when they do occur, they always trigger inversion with both conjuncts.<sup>6</sup>

### 6. A syntactic analysis of the correlatives

We have established that correlatives are focus particles, and hence adverbs, but have not yet suggested a syntactic analysis. Below are some syntactic problems that need to be accounted for:

1) Each correlative is associated with only one conjunction. (*either...and* is impossible).

2) In sentential coordination, the correlative can be part of the first conjunct. This is witnessed by the V2 inversion effects in the V2 languages, as well as English and other examples where the correlative is buried inside the first clausal conjunct.

3) The extent to which correlatives inflict ambiguity on the interpretation of the ConjP varies with its syntactic position.

4) Correlatives do not always trigger V2, or they do not trigger it in the same way.

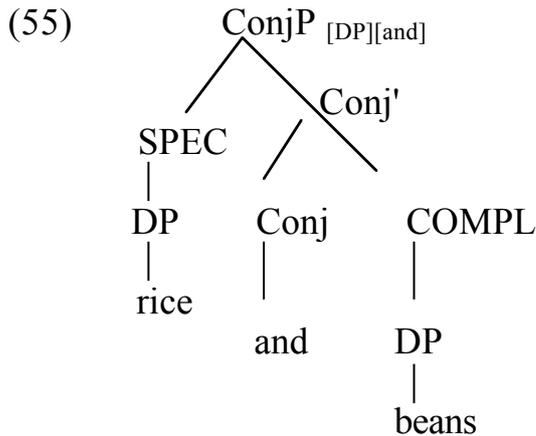
Starting with the first problem, it is clear that the dependency between the correlative and its conjunction is absolute. For each correlative, there is a choice of exactly one conjunction:

(54) I like *both* pears *and*/\**or* bananas

This means that there must be some local connection between the correlative and the conjunction. Basing the analysis on Johannessen (1998), I shall take the conjunction to be the head of a ConjP, which has the conjuncts in the specifier and complement positions, respectively. The relevant information from the conjuncts (such as part of speech and grammatical features, as well as information about which conjunction is a head) is inherited to the top projection via spec-head agreement (unification).

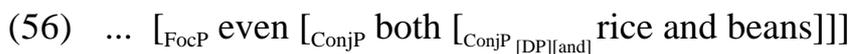
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<sup>6</sup> Indeed, something similar to the fact that the type III correlatives do trigger inversion is known in English with the non-correlative *neither*: *Neither did Mary play the piano*. They seem to have the inherent negative meaning in common, and this may have something to do with the fact that they all trigger inversion if they are at all allowed in that position. (Thanks to Ora Matushansky for this observation.)



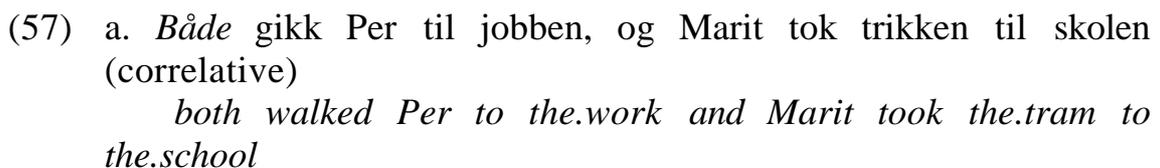
We have seen that Bayer (1996) shows that for focus particles, there are two types of position: the one immediately next to the focused phrase (the marked position), and one further up (he says in VP) (the unmarked position). The marked position can be recognized by the fact that the phrase following it must be focused, and indeed carry stress. In contrast, the particle in the unmarked position has no such requirements for its focused phrase: it can occur anywhere in the particle's c-commanding domain. We will use this knowledge in our syntactic analysis.

Let us start with an analysis of correlatives that immediately precede the phrase they modify. Phrase-modifying correlative projections are situated below the focus particle phrase and immediately above the ConjP, selecting the appropriate ConjP:



We see why the correlatives co-vary with conjunctions: The correlative can only adjoin to a ConjP that has compatible features with it. Thus, *both* requires a ConjP that has *and*-features, a requirement that is satisfied above.

Let us then proceed to correlatives in other and more neutral positions. We have seen that correlatives have in common with adverbs the V2 triggering ability. This similarity between the two types of words is shown below:



b. *Ofte* gikk Per til jobben, og Marit tok trikken til skolen  
(ordinary adverb)  
*often walked Per to the.work and Marit took the.tram to the.school*

- (58) a. Marit spurte [om Per *ofte* gikk til jobben].  
*Marit asked whether Per often walked to the.work*  
b. Marit spurte [om Per *enten* gikk til jobben] eller [om han tok trikken].  
*Marit asked whether Per either walked to the.work or whether he took the.tram*

We will follow Cinque's (1999) proposal (developed for Norwegian by Nilsen 2000) that each adverb, here: each correlative, has its own projection. Cinque gives a detailed hierarchy of adverbial projections, in which each has its own projection. Part of the hierarchy is shown below.

- (59) [*frankly* Mood<sub>speech act</sub> [*fortunately* Mood<sub>evaluative</sub> ... [*usually* Asp<sub>habitual</sub> [*again* Asp<sub>repetitive</sub> ...]]]]]  
(Cinque 1999:106)

The correlative position is lower than any of the adverbials in Cinque's hierarchy:

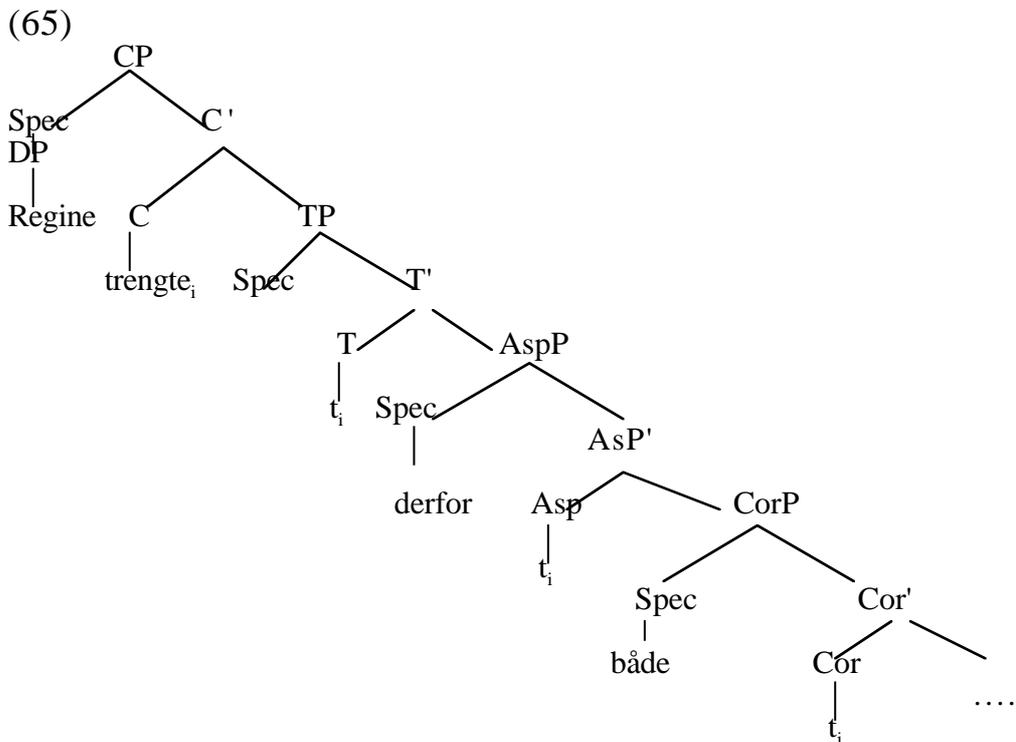
- (60) ...de rundt 6000 sjøfolkene som gjerne vil til sjøs igjen,  
*the around 6000 sailors who very.much would to sea again*  
men som *nå enten* [<sub>ConjP</sub> [<sub>IP</sub> er ledige] eller [har en jobb i land]].  
*but who now either are vacant or have a job on land*
- (61) Også innlånsavtaler skal *imidlertid enten* [[<sub>ConjP</sub> [<sub>VP</sub> godkjennes av Kredittilsynet]  
*also borrowings.agreements should anyway either be.accepted by The.Credit.Board*  
eller [inngås under medvirkning av en oppgjørssentral]].  
*or be done under cooperation by a payment.central.*
- (62) Forskningsinstituttet i Beijing har *naturlig nok både* [egen [abortavdeling]  
*The.research.insitute in Beijing has naturally enough both own abortion.ward*  
og [ultralydavdeling]].  
*and ultra-sound.ward.*

- (63) Regine trengte *derfor både* [<sub>DP</sub> ny [<sub>ConjP</sub> lever og tarm]].  
*Regine needed therefore both new liver and intestines*  
 (The Oslo Corpus)

The evidence shows that the correlative is lower than the other adverbs, giving thus a hierarchy like the one below:

- (64) [*frankly* Mood<sub>speech act</sub> [*fortunately* Mood<sub>evaluative</sub> ... [*usually* Asp<sub>habitual</sub> [*again* Asp<sub>repetitive</sub> ... [*både* CorP...]]]]]]

A syntactic tree would look like (65) (following the general syntactic representation of Platzack 1998), with the correlative low in the adverbial area of the tree:



The CorP position above is taken to be an unmarked position. When a correlative is in its unmarked position, its focus can be anywhere in its c-commanding domain. However, how is the dependency between type of correlative and type of conjunction obtained if the ConjP is not adjacent to the CorP? We shall assume, with Larson (1985), that the correlative has moved from an adjoined position next to ConjP, overtly or covertly (the latter only when the conjunction phrase is heavily stressed and focused).

- (66) Regine trengte derfor [<sub>CorP</sub> *både*<sub>i</sub> [<sub>DP</sub> ny [<sub>ConjP</sub> *t*<sub>i</sub> [<sub>ConjP</sub> lever og tarm]]]]].

The account so far shows how the correlative has two different positions - a marked one (next to ConjP) and an unmarked one (in the clausal domain, i.e. in the adverbial hierarchy). However, it does not explain the puzzling fact of how the correlative in its unmarked position gives an *unambiguous* interpretation while the marked position gives an *ambiguous* interpretation. We can follow the lines given for focus particles in Bayer (1996:53) and for *either* in Larson (1985): The correlative has to be in an appropriate quantificational domain – a position of sentential scope - which we shall, at the moment, take to be CorP. If the correlative is simply adjoined to the conjunction phrase (ConjP), it has to rise to CorP. Covert movement leaves two possible scopes, and hence two interpretations. If, on the other hand, the correlative has moved to CorP overtly, there will be only one scope, and hence one interpretation.

A more challenging situation is the one in which the correlative is inside a (clausal or verbal) conjunct:

(67) Dette [<sub>ConjP</sub>[<sub>C'</sub>] [<sub>C'</sub> er *jo både hyggelig*] og [<sub>C'</sub> fører til at du ikke drikker så mye]].

*this is of course both nice and leads to that you not drink so much*

‘This is of course both nice and it has the effect that you don’t drink so much.’

(68) [<sub>ConjP</sub>[<sub>CP</sub>] [<sub>CP</sub> *Enten* bærer den mat til fuglene], eller [<sub>CP</sub> den bærer snø]].

*either carries it food to the-birds or it carries snow*

‘Either it carries food to the birds, or it carries snow.’

In (67), it is obvious that the correlative is inside the first conjunct - the ConjP projection is thus higher up. In (68), the correlative is clause-initial, but still belongs only to the first clause, as we know from the V2 inversion effect that only affects the first conjunct. Again the ConjP projection is further up.

For such sentences, it is impossible for the correlative to first have adjoined to the ConjP, and then moved to CorP, since that would have implied rightward movement. We can assume that the correlative is base generated in the places that we see in (67) and (68), i.e., that in these cases they have *not* been generated adjoined to CoP.

That presents us with two problems. The first question is the usual one: How is the correlative licenced by the proper conjunction in these cases? The second question has to do with c-command: How can the

correlative c-command the focused domain (i.e., the conjuncts) when it seems to be lower than it?

In both cases, the answer involves movement to a proper quantificational position. There is no reason to assume that the features of *enten* or *både* are strong, so our answer is that the correlative moves covertly to the next quantificational domain. The position has to provide a solution to the two questions just mentioned, which means that the correlative has to move to a position that has scope over the focused conjuncts, and can find a configuration in which it will agree with the proper conjunction. In both (67) and (68), the target position will be an adjunction site to the ConjP, exemplified below:

- (69)  $[\text{ConjP} \text{ (target)}]_{\text{ConjP}} [\text{CP} \textit{Enten} [\text{C}' \text{ bærer den mat til fuglene}]],$   
 $\quad \quad \quad \uparrow$   
 $\quad \quad \quad \text{-----}$   
 $[\text{C}' \textit{eller} [\text{CP} \textit{den bærer snø}]]].$

To sum up, the correlative can occur in many positions. But if it occurs in any position other than the CorP, it has to move covertly or overtly to either the CorP, or – if it is generated below the ConjP – to a position adjoined to ConjP. If ConjP is a proper quantificational domain (verbal or sentential), this site can be a landing site, if not it has to move even further to the left.

There is empirical evidence for this covert movement. We have seen that stressed constituents must be c-commanded by the correlative. When the correlative is inside one conjunct, a word that is above it can c-command the correlative, rather than vice versa. This is very surprising:

- (70) [Per GIKK *enten* til trikken] eller [han tok **BUSSEN**].  
*Per walked either to the tram or he took the bus*

But with our suggestion that the correlative moves to the top (to ConjP[CP]) covertly, the correlative will end up c-commanding the focused phrase, correctly resulting in (70) being acceptable.

Let us also consider the situations in which the correlative modifies a phrasal ConjP above the CorP, e.g. in the subject DP:

- (71) *Enten*  $[\text{ConjP} \textit{ris eller bønner}]$  passer best til denne fiskeretten  
*either rice or beans suit best this fish-dish*  
 ‘Either rice or beans is best suited for this fish-dish.’

As before, ConjP[DP] is not a good enough domain for quantification. Since the correlative cannot move rightward, it has to move up to its nearest quantifying domain, which is the CP domain. As we now know, movement causes two scopes of interpretation. If we can find two different scopes for the sentence (71), then that would support our hypothesis. And indeed, this is what we find. In one reading, it is the case that one of either rice or beans is better than the other, it is just not mentioned or known by the speaker. In the other interpretation, it doesn't matter which we choose, as long as we choose one of them.

- (72) [<sub>CP</sub> (QR-target) [<sub>CP</sub> [<sub>ConjP</sub>[DP] *Enten* [<sub>ConjP</sub>[DP] ris eller bønner]] passer best  
 ↑  
 \_\_\_\_\_  
 til denne fiskeretten]]

- (73) *Både ris og bønner passer til fisken*  
*both rice and beans suit the.fish*

We also see a scope difference with the correlative *both*.<sup>7</sup> In one interpretation there is a claim that either vegetable is good for this dish. In the other, the claim is that both vegetables should be served simultaneously with that dish.

A further argument that supports the movement analysis can be found in Norwegian w.r.t. the correlative *verken*. This word at first looks like a Negative Polarity Item (NPI) that has to be licenced by negation:

- (74) De kan \*(ikke) gi *verken* [dere eller meg]  
*they can not give neither you nor me*  
 tilfredsstillende dekning  
*satisfactory coverage*  
 'They can not give neither you nor me satisfactory coverage.'  
 (The Oslo Corpus)

However, the NPI status is only apparent. The word *verken* can be found in other positions in which no negative licencer is required. These positions are post-finite-verb, and sentence initial:

<sup>7</sup> I am grateful to Jan Tore Lønning for this observation.

- (75) *Jeg er nok verken særlig ["speiset" eller trendy]  
I am probably neither very spaced nor trendy  
'I am probably not neither very spaced out nor trendy.'*  
(The Oslo Corpus)

- (76) *Verken [Bjørn eller Sigurlina] kunne si  
neither Bjørn nor Sigurlina could say  
om det lå noe symbolsk i det.  
whether it lay something symbolic in it  
'Neither Bjørn nor Sigurlina could say whether there was anything  
symbolic in it.'*  
(The Oslo Corpus)

The positions in which *verken* does not need negative licencing are of course exactly the two quantification domains that we have seen already: the post-finite-verb position is the CorP position - low in the adverbial hierarchy.

It is not, however, immediately obvious that the sentence initial position which *verken* occupies in (76) is the quantifying CP position rather than an adjoined DP position. It is difficult to test this, since *verken* does not show the kind of ambiguity that we have seen with *enten*. We will choose, however, to generalize from *enten*. But we have to draw the conclusions further in the case of *verken*. This word obviously has strong features, since it has to be licenced overtly. If it occurs below CorP, it can be licenced (c-commanded) by negation. If there is no overt licencer, it must move to CorP. If it is modifying some conjunction phrase higher up than ConjP, it must move to a quantification domain - which is the CP domain.

This account of *verken* suggests that there should be no ambiguity for it, when it is an NPI, since it then obviously is properly licenced and does not move to CorP. This is in accordance with the facts - ambiguity cannot be found.

The difference between *verken* and the other correlatives also shows up in the interplay between quantifiers and correlatives. Consider the difference between the sentences with *både* and *verken*, where both of them modify a DP:<sup>8</sup>

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<sup>8</sup> I am very grateful to Kjell Johan Sæbø for the examples of the interplay between the quantifying adverb and the correlative.

- (77) Jeg har *ofte ikke møtt verken Anders eller Kristin* (*ofte*: wide scope)  
*I have often not met neither Anders nor Kristin*
- (78) Jeg har *ofte møtt både Anders og Kristin* (*ofte*: wide or narrow scope)  
*I have often met both Anders and Kristin*

Since *verken* needs to be licenced by a negative element, it cannot move. The result is that the sentence is unambiguous - *ofte* retains its wide scope. The correlative *både*, however, moves to the CorP position by QR, and can actually move to a quantifying position in front of *ofte*, with the DP. When the correlative is generated in its canonical position, however, it is already in a quantification domain, and will not rise further.

- (79) Jeg har *ofte verken møtt Anders eller Kristin* (*ofte*: wide scope)  
*I have often neither met Anders nor Kristin*
- (80) Jeg har *ofte både møtt Anders og Kristin* (*ofte*: wide scope)  
*I have often both met Anders and Kristin*

Having seen how the analysis is for correlatives that occur inside the first conjunct, we will turn briefly to the other two possibilities that we have seen. For some languages (Norwegian, Swedish, German, Dutch, Icelandic), for some correlatives (usually *either* or *neither*), there is V2 inversion in both conjuncts. It is clear then, that the correlative is situated outside ConjP, since that is the only way it can have syntactic influence over both conjuncts:

*Swedish 'either-or'— V2 in both conjuncts:*

- (81) *Antingen får man då bättre betalt för vattenkraft eller kan vi sälja mer från Finland.*
- (82) [<sub>CP</sub> *Antingen* [<sub>ConjP</sub> [<sub>C'</sub> får man då bättre betalt för vattenkraft] [<sub>C'</sub> eller [<sub>C'</sub> kan vi sälja mer från Finland]]]]].

Some languages (German and Dutch) have the possibility of correlatives not triggering V2:

*Dutch 'either-or'— No V2 in any conjunct:*

- (83) *Ofwel het regent, of wel het is koud*  
*either it rains or it is cold*  
 'Either it is raining, or it is cold.'

Of course, the correlative *ofwel* is not in an adverbial position here, or else it would have triggered V2 inversion. It would have to be a subjunction.

## 7. Conclusion

We have seen that there are similarities between correlatives and focus particles (syntactic distribution and scope ambiguities) (as shown also in recent work by Hendriks), and between correlatives and adverbials (syntactic distribution). Different correlatives have different syntactic distribution, but a general analysis which accounts for all the variation has been suggested. It is a movement analysis inspired by Larson (1985), but also of Bayer (1996) and Cinque (1999). It is based on correlatives having weak and strong features, on overt and covert movement, and on a CorrelativePhrase in the functional clausal domain.

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## CORRELATIVE ADVERBS IN GERMANIC LANGUAGES

### **Text corpora:**

*The Oslo Corpus of Tagged, Norwegian Texts:*

<http://www.tekstlab.uio.no/norsk/bokmaal/>

*Språkbanken, Press 97, Parole:* <http://scrooge.spraakdata.gu.se/>

*The VISL corpus of Danish:* <http://corp.hum.sdu.dk/corpustop.html>