Negative Concord and (Multiple) Agree:

A Case Study of West Flemish

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Abstract[*]

This paper examines the formalization of negative concord in terms of the Minimalist Program, focusing entirely on negative concord in West Flemish. It is shown that a recent analysis of negative concord which advocates Multiple Agree is empirically inadequate. Instead of Multiple Agree, it is argued that a particular implementation of the simpler and less powerful binary Agree is superior in deriving the data in question.

Keywords: Agree, Intervention, Multiple Agree, Negative Concord, West Flemish

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1.   Introduction

With the advent of the Agree model (Chomsky 2000, 2001, 2004, 2007, 2008), negative

concord, in which there seems to be agreement between negative constituents, has given rise

to renewed interest, both from a synchronic (Watanabe 2004, Zeijlstra 2004, Lindstad 2007,

Penka 2007a,b, to appear) and a diachronic (Zeijlstra 2004, van Gelderen 2008, Roberts and

Roussou 2003, Roberts 2007) point of view. In this paper we exclusively focus on data such

as West Flemish (WF) (1a).[i] As the translation indicates, (1a) is interpreted as if it contained a

single expression of sentential negation, in spite of the fact that it contains three negative

expressions, *nooit* 'never', *niets* 'nothing' and *niet* 'not', each of which can express sentential

negation all by itself:[ii]

(1)   a.   K'(en)-een *nooit niets   niet* gezien.

              I   (*en*)-have never nothing not seen

              'I have never seen anything.'

        b.   K'(en)-een *niet* gewerkt.

              I   (*en*)-have not worked.

              'I haven't worked.'

        c.   K'(en)-een *niets*   gezien.

              I   (*en*)-have nothing seen

              'I haven't seen anything.'

        d.   K'(en)-een *nooit* gewerkt.

              I   (*en*)-have never worked

              'I have never worked.'

The interest of (1a) for the concept Agree is that the three so called *n*-words, *nooit, niets, niet*, jointly convey a single (sentential) negation. (1a) suggests that such negative constituents are not semantically negative, i.e. that they do not themselves encode sentential negation; instead they are uninterpretable 'negative dependents' (cf. Borsley and Jones 2005, Willis 2006) of an interpretable (possibly null) negative constituent.[iii] Or, to put it differently, (1a) can be taken to display a form of syntactic agreement between a number of constituents that depend on/are in the scope of the constituent encoding semantic negation (Ladusaw 1992, Brown 1999, Zeijlstra 2004, 2008, Penka 2007a,b, Biberauer and Zeijlstra in press). Formalizing this hypothesis, it has been argued (Roberts and Roussou 2003: 145, Zeijlstra 2004, 2008, Moscati 2006, Penka 2007a,b) that negative concord involves only one interpretable negative feature which values (possibly multiple) uninterpretable negative features.[iv] Thus negative concord (from now on abbreviated as NC) would be a case of Multiple Agree (Ura 1996, Hiraiwa 2001, 2005, Chomsky 2008).

Although attractive, the Multiple Agree (MA) account raises questions. One is conceptual in nature: MA, in which many Probes agree with one Goal, leads to the abandonment of a strict locality condition on agreement. In addition, we will show in the present paper that adopting MA to account for NC (as proposed by Zeijlstra 2004, Penka 2007a) leads to empirical problems for WF. We will propose that a slightly revised formulation of binary Agree (much in the spirit of Pesetsky and Torrego 2007) makes it possible to handle the WF data.

The paper is structured as follows. Section 2 presents the core data of sentential negation in WF relevant for the issue of NC as an instantiation of MA. Section 3 presents the MA account of NC proposed in Zeijlstra (2004, 2008) and discusses the conceptual and empirical problems raised by the proposal. Section 4 introduces the theoretical machinery

which we adopt for our own analysis and section 5 elaborates our analysis of WF NC in terms of binary Agree. Section 6 summarizes the paper.

2.   Sentential Negation in West Flemish

This section introduces the data for the expression of sentential negation in WF which are relevant for the analysis of NC as MA. Readers familiar with the WF data will not find much new here (cf. Haegeman and Zanuttini 1991, 1996, Haegeman 1995). For reasons of space we omit from the discussion issues which do not at this stage appear to be relevant for the issue at hand.

2.1.   Expressions of Negation: An Inventory

Three types of constituents are implicated in the expression of sentential negation in WF. A first component is the morpheme *en*, which cliticizes onto the finite verb (see Haegeman 1998a,b, 2000b,c, 2002b) and moves along with it (cf. (2d)). We assume that it spells out a head. *En* cannot express negation all by itself (2a), it must co-occur with a negative constituent (2b-c). Furthermore, *en* is never obligatory: in (2b-d) it may be left out without loss of grammaticality. As it is only tangentially relevant to our discussion, we will not discuss the properties of *en* in detail. Following Haegeman (1998a,b, 2000b,c, 2002b), we assume that *en* is a spell-out of the head Pol (cf. Willis (2005) for PolP in Welsh, see also Breitbarth and Haegeman (2008) for a slightly different implementation) rather than being associated with a NEG feature. For reasons of space we will not elaborate this point here and we refer to the papers cited for arguments.

(2)   a.   *da   Valère dienen boek *en*-kent

              that Valère that   book *en*-knows

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b. da Valère dienen boek *niet en*-kent

   that Valère that book not *en*-knows

   'that Valère doesn't know that book'

c. da Valère *niemand en*-kent

   that Valère no one *en*-knows

   'that Valère doesn't know anyone'

d. Valère *en*-kent dienen boek *niet.*

   Valère *en*-knows that book not

   'Valère doesn't know that book.'

  A second negative element is the marker of sentential negation, *niet* 'not', which is parallel to Germanic negative markers such as German *nicht*, Dutch *niet* and Norwegian *ikke*. *Niet* is located in the middle field, in a position c-commanding *v*P. As seen in (2d), *niet* is not affected by the movement of the finite verb. We assume that *niet* has XP status (cf. Haegeman 1995, Zeijlstra 2004).

  Negative constituents, or *n*-words as they are usually called following Laka (1990)[v], are the third type of negative expression. An *n*-word is a constituent that appears in the contexts of NC which we are interested in here. The relevant WF *n*-words are either simple one word items such as *niemand* 'nobody', *niets* 'nothing', *nooit* 'nowhere' and *nieverst* 'nowhere' (these will be jointly referred to as simple *n*-constituents), or syntactically more complex constituents which contain the negative quantifier *geen* 'no', e.g. *geen studenten* 'no students' and *geen geld* 'no money', which will be referred to as "*geen*-NPs", or which contain a negative marker *niet* as in *niet dikkerst* 'not often', *niet lange* 'not long', *niet vele* 'not much' *etc*. The use of *n*-words is illustrated in (1c), (1d), (2c) and in (3) below. As indicated by the parentheses, *en* remains optional.

(3) a. da   Valère dienen boek *nieverst* (en)-vindt

that Valère that   book nowhere (*en*)-finds

'that Valère doesn't find that book anywhere'

b. da   Valère *geen geld*   (en)-eet

that Valère no   money (*en*)-has

'that Valère doesn't have any money'

c. da Valère ier *niet dikkerst* geweest (en)-eet

that Valère here not often been (*en*)-has

'that Valère hasn't been here often'

Our paper is concerned with the extent to which the *n*-constituents and *niet* enter into NC readings (see Vanacker 1975 for a first description (in Dutch) of some of the crucial data).

2.2.   Negative Concord in WF

Haegeman (1995, 1997) argues that in WF an *n*-word with sentential scope must undergo leftward NEG-movement, as illustrated in (4) (cf. Haegeman's discussion for details; Koch Christensen 1986, 1987 for similar proposals for Norwegian).

(4) a. da   Valère *van niemand* ketent   en-was

that Valère of   no one   contented *en*-was

'that Valère was not pleased with anyone'

b. *da   Valère ketent   *van niemand* en-was[vi]

that Valère contented of   no one   *en*-was

When *n*-constituents with sentential scope co-occur with *niet* they must move to the left of *niet.* Such moved constituents enter into an NC relation with each other and with *niet* (Haegeman 1995: 138-139) as in (5a). Failure to undergo NEG-movement leads to a double negation reading as in (5b). Importantly, though, as also shown by (4), the obligatory leftward movement of the *n*-constituent(s) in (5a) cannot be motivated by their need for entering into NC with *niet* as such, because NEG-movement must also take place when *niet* is absent. Parallel with (5a), in which the *n*-constituents precede *niet,* in (5c) *niet* is absent. Once again the *n*-constituents have to undergo NEG-movement. If *over niets* 'about nothing' were to remain to the right of *ketent* 'contented' NC would be excluded (5d).

(5)   a.   … dat ter   *niemand over niets*   *niet* ketent   en-is

                  that there no one   about nothing not contented *en*-is

                  '… that no one is satisfied with anything'   (NC)

        b.   … da ter   *niemand niet ketent*   *over niets*   en-is

                  that there no one   not contented about nothing *en*-is

                  '… that no one isn't satisfied with anything'   (*NC/?DN)

        c.   … dat ter   *niemand over niets*   ketent   en-is

                  that there no one   about nothing contented *en*-is

                  '… that no one is satisfied with anything'   (NC)

        d.   … da ter   *niemand ketent*   *over niets*   en-is

                  that there no one   contented about nothing *en*-is

                  '… that no one isn't satisfied with anything'   (*NC/?DN)

Not only simple *n*-words such as *niemand* 'no one', *niets* 'nothing', *nieverst* 'nowhere' and *nooit* 'never' enter into an NC relation. Other negated DPs with more complex structure can

also enter into NC with clause-mate *n*-constituents (Haegeman 2002a). For instance, in (6a) the DP *geenen tyd* 'no time' enters into an NC relation with *nooit* 'never'.[vii] In (6b) *niet* 'not' negates a quantified nominal constituent *(te) vele tyd* 'too much time'; the negated constituent enters into NC with *nooit* 'never'. In (6c) *niet* negates an adverb (*lange* 'long', *dikkerst* 'often'), and the negated adverb enters into NC with *niemand* 'no one'. On the basis of data such as those in (6), Haegeman (2002: 157) concluded that DPs containing negated quantifiers or negated adverbs are to all intents and purposes clausal negators.

(6)   a.   K'(en)-een *nooit geenen tyd.*

                I (*en*)-have never no   time

                'I never have any time.'

        b.   K'(en)-een *nooit niet (te) vele   tyd.*

                I (*en*)-have never not (too) much time

                'I never have a lot of /too much time.'

        c.   T'(en)-eet doa *niemand niet lange /dikkerst* geweest.

                it (*en*)-has there no one   not long/often been

                'No one has been there for a long time/often.'

It is also possible for constituents containing a negative quantifier to have local scope. This is illustrated in (7): *in geen tyd* 'in no time' does not negate the clause but means something like 'in very little time'. Because the clause is not negative, *en* is not licensed, there is no need for NEG-movement (7b). Any *n*-word present in the middle field of the clause will not enter into NC with *in geenen tyd*. In (7c) *en* is licensed by virtue of the presence of *niet,* but *niet* and *in geen tyd* do not enter into an NC relation. For reasons of space we cannot go into the discussion of *n*-words with local or constituent scope; we refer to, among others,

Borkin (1971), Lawler (1971), Haegeman (1997, 2000a), Progovac (2000), Svenonius (2002), Moscati (2006), and the references cited there.

(7)   a.   *In geen tyd (*en)*-oan-ze   da   gedoan.

              in no   time (*en)-had-they that done

              'They had finished that in no time.'

        b.   dan-ze   da   gedoan(*en)- oan *in geen tyd*.

              That-they that done(*en)-had   in no   time

              'that they had finished that in no time.'

        c.   Z'(en)-oan da   *niet* gedoan *in geen tyd*.

              they (*en*)-had that not done   in no   time

              'They did not finish that in no time.'

2.3.   DP-internal Negative Concord

The bracketed negative constituent in (8) below also expresses sentential negation.[viii] The string differs minimally from the quantified *n*-constituent in (6b) above by the addition of *geen* 'no', but importantly, this does not lead to a change in meaning. For arguments that the bracketed string in (8) is a constituent, see Haegeman (2002). Haegeman (2002) analyzes the *niet Q geen* N sequences as instantiations of DP-internal NC.

(8)   K'(en)-een   *nooit* [*niet* (te) *vele   geen tyd*].

        I   (*en*)-have never not (too) much no   time

        'I never have a lot of/too much time.'

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3.   Negative Concord as Multiple Agree (Zeijlstra 2004, 2008, Penka 2007a,b)

This section first provides an overview of Zeijlstra's (2004, 2008) proposal for the analysis of NC in terms of MA, after which we discuss the conceptual and empirical problems for his account.

3.1   Zeijlstra (2004, 2008)

In order to account for the co-occurrence of what seems like multiple n-constituents conveying a single sentential negation, Zeijlstra (2004, 2008) proposes that such constituents are semantically non-negative indefinites with an [uNEG] feature (2004: 245). The sentential negative marker, *e.g*. WF *niet,* is also taken to bear [uNEG]. The very existence of [uNEG] features triggers the projection of NegP. Sentential negation as such is encoded by a covert negative operator OP¬, in SpecNegP, associated with an [iNEG] feature. 'OP¬ (i) introduces a negation at LF, and (ii) unselectively binds all free variables under existential closure.' (2004: 247).[ix]

In Zeijlstra's system, Op¬ [iNEG] in SpecNegP c-commands the (multiple) [uNEG] n-constituent(s) on the vP edge. This 'reverse Agree' departs from the standard view according to which the Probe with the uninterpretable feature c-commands the Goal with the interpretable feature. For some discussion of reverse Agree see also Brown (1999: 29, note 11), Adger (2003), Merchant (2004), Merchant and Sadock (2008), von Stechow (2005), Bošković (2007), Baker (2008) and von Stechow and Zeijlstra (2008).

In Zeijlstra's approach, NC is the result of MA (Hiraiwa 2001) between OP¬, on the one hand, and the negative marker and n-words on the other. We quote:

The central hypothesis behind the assumption that [NC] languages express (sentential) negation by means of syntactic negation is that negation in these languages exhibits

syntactic agreement that, in *principle, does not differ from (syntactic) person or Tense agreement*. …n-words are non-negative indefinites that are *syntactically marked for negation*, i.e. they bear an uninterpretable [uNEG] feature, that at some point during the derivation needs to be checked against an overt or covert element that carries an interpretable [iNEG] feature. This feature checking is governed by the syntactic operation Agree. Thus [NC] is the realisation of an agreement relation between a negative operator and an n-word. (2004: 244-5, our italics)

3.2.   Application

Consider the Czech example (9a). Since Czech is an NC language Zeijlstra assumes it has a NegP whose specifier hosts a covert operator with an interpretable [iNEG] feature. In (9a), the verb *vidi* 'see' is associated with a negative morpheme *ne*, with an [uNEG] feature, and so is the *n*-word *nikoho* 'no one'. Through MA the [uNEG] features get checked and deleted (9b).[x]

(9)   a.   Milan nevidi nikoho.

                Milan NEG sees no one

        b.   [$_{NegP}$ OP¬ [iNEG] [$_{vP}$ nikoho [uNEG] [$_{vP}$ Milan nevidi [uNEG]]]] (2004: 250)

Zeijlstra also applies his analysis to WF (2004: 255-256). According to his analysis, in a WF example with a single negative marker *niet* 'not' and the negative morpheme *en,* both *niet* and *en* carry [uNEG] and the two [uNEG] features get checked by the [iNEG] feature on the negative operator in SpecNegP. In (10) his analysis is applied to an example with a single negative marker *niet* 'not' and with the negative morpheme *en:* both carry an [uNEG] feature and the two uninterpretable features get checked via the interpretable feature on the negative operator in SpecNegP. Observe that *en* is optional here. In (11a), sentential negation is conveyed by

means of an *n*-word, *niemand* 'no one', which may be accompanied by *niet* as well as by *en.*

Zeijlstra (2004) provides representation (11b):

(10)   a.   da Valère niet (en)-klaapt

                that Valère not (*en*)-talks

                'that Valère doesn't talk'

        b.   [$_{\text{NegP}}$ OP ¬ [$_i$NEG] [$_{vP}$ *niet* [~~$_u$NEG~~] [$_{vP}$ Valère [$_{v'}$ *en*-klaapt [~~$_u$NEG~~]]]]]

                (Zeijlstra 2004: 255)

(11)   a.   da Valère tegen   nieman[d] (niet) en-klaapt

                that Valère against no one   (not)   *en*-talks

                'that Valère doesn't talk to anyone'

        b.   [$_{\text{NegP}}$ OP ¬ [$_i$NEG]

                [$_{vP}$ [$_{PP}$ tegen *niemand* [~~$_u$NEG~~]] [$_{vP}$(*niet* [~~$_u$NEG~~]) [$_{vP}$ Valère [$_{v'}$ *en*-klaapt

                [~~$_u$NEG~~]]]]]]

                (Zeijlstra 2004: 255)

3.3.   Negative Concord as Multiple Agree: Problems for the Account

A first problem for Zeijlstra's MA account of NC is conceptual: MA, in which many Probes

agree with one Goal, leads to the abandonment of a strict locality condition on Agree, in that

precisely in the context of MA a Probe need not have a local relation with (at least one of) its

Goal(s). Not only does this raise general questions concerning the role of locality in syntax,

but, as we will see presently, locality plays a crucial role in determining the conditions of NC

in WF. There are two specific empirical problems for the MA account of WF NC. First, the

across-the-board application of MA to derive NC gives rise to the wrong predictions. Second,

the MA approach has difficulty in handling the DP-internal application of NC, and its relation to NC at the sentential level. [xi]

3.3.1. Multiple Agree and Locality

In Hiraiwa's original conception as well as in Zeijlstra's (2004, 2008) implementation, MA is a process whereby all uninterpretable features are 'simultaneously' eliminated:

> MULTIPLE AGREE (multiple feature checking) with a single probe is a *single simultaneous syntactic operation; AGREE applies to all matched goals at the same derivational point derivationally simultaneously*. (Hiraiwa 2001: 69, our italics)

The implementation of MA for the phenomenon of NC can be schematically presented as in (12). Based on Hiraiwa's own formulation ('AGREE applies to all matched features') we assume that MA, like binary Agree, is a two-step process which first matches the features and then leads to checking. After the merger/move of the individual n-constituents to the edge of vP, each with its [uNEG] feature, the abstract negative operator, OP¬ with [iNEG] is merged in SpecNegP. MA relates [iNEG] 'across-the-board' to each of the individual [uNEG] features; crucially there is no relation between the [uNEG] constituents as such. MA thus implies that Agree can be non-local, since in (12c), for instance, [B uNEG] and [C uNEG] intervene between [OP iNEG] and [D uNEG].

(12) a. [$_{NegP}$ OP ¬[iNEG] [$_{vP}$ [B uNEG] [$_{vP}$ [C uNEG] [$_{vP}$ D uNEG]]]]⇒ Match

　　　b. [$_{NegP}$ OP ¬[iNEG] [$_{vP}$ [B uNEG] [$_{vP}$ [C uNEG] [$_{vP}$ [D uNEG]]]]⇒ MAgree

　　　c. [$_{NegP}$ OP ¬[iNEG] [$_{vP}$ [B ~~uNEG~~] [$_{vP}$ [C ~~uNEG~~] [$_{vP}$ D ~~uNEG~~]]]]

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We illustrate the application of the system to WF in (13). Here we apply Zeijlstra's approach to an example in which three *n*-words *nooit* 'never', *niemand* 'no one', and *niet vele* 'not much', enter into an NC relation.

(13) a.   dat er   nooit niemand niet vele gewerkt eet   *nooit niemand niet vele:* NC

                 that there never no one   not much worked has

       b.   dat er [$_{NegP}$ OP ¬ [iNEG]

              [$_{vP}$ nooit [uNEG] [$_{vP}$ niemand [uNEG] [$_{vP}$ niet vele [uNEG] gewerkt eet]]]]

3.3.2.   Empirical Problems (I): NC and Binary Relations

3.3.2.1.   Conditions on NC in WF

According to the MA account, NC is a one-to-many relation in which the negative operator agrees with each *n*-word, and in which there is no specific relation between the individual *n*-words. However, Haegeman and Zanuttini (1996) signal that in WF the nature of the negative element also plays a role in generating NC.[xii] To the best of our knowledge, the data which they present have not so far been taken into account in the literature on NC.

Consider (14): in (14a) *niemand* 'no one' enters into an NC relation with *niet* 'not', in (14b) *niemand* enters into an NC relation with *niet dikkerst* 'not often' and in (14c), the three *n*-constituents, *niet dikkerst, niemand* and *niet,* enter into NC.

(14) a.   dat er   doa niemand niet gewerkt eet   *niemand nie*: NC

                 that there there no one   not worked has

                 'that no one has worked there'

b.	dat er doa niet dikkerst niemand gewerkt eet	*niet dikkerst niemand*: NC

that there there not often   no one   worked has

'that not often did anyone work there'

c.	dat er doa niet dikkerst niemand niet gewerkt eet

niet dikkerst niemand nie: NC

that there there not often no one not worked has

'that not often did anyone work there'

In terms of Zeijlstra's approach this means that *niet dikkerst* 'not often, *niemand* 'no one', and the marker of sentential negation *niet* 'not' all carry a [uNEG] feature which is checked by the [iNEG] feature on the sentential negative operator. Since *niet dikkerst* and *niet* are in an NC relation in (14c), one might expect that (14d), with the same three *n*-constituents, now in the sequence *niemand niet dikkerst* and *niet* , will also be grammatical with an NC reading, contrary to fact. (14d) is ungrammatical with an NC reading. It is marginal with an interpretation in which *niemand* and *niet dikkerst* enter into NC and in which (stressed) *niet* expresses an independent negation, resulting in a Double Negation (DN) reading.[xiii] When *niet* is replaced by *niet meer* 'no more' (14e) the NC reading is again available.[xiv]

(14)	d.	*dat ter doa niemand niet dikkerst niet gewerkt eet

niet dikkerst nie: ??DN/*NC

that there no one not often not worked has

DN: 'that rarely did anyone NOT work there.'

e.   dat ter doa niemand niet dikkerst niet meer gewerkt eet

niet dikkerst nie: NC

that there no one not often not more worked has

DN: 'that rarely did anyone work there any more.'

The ungrammaticality of the NC reading in (14d) cannot be due to a simple ban on the co-occurrence of *niet dikkerst* with *niet* since (14c) also contains *niet dikkerst* and *niet* and is grammatical with the desired NC reading. The ungrammaticality of the NC reading in (14d) is also not due an anti adjacency condition on *niet dikkerst* and *niet*: in (14f) *niet dikkerst* and *niet* are separated by the PP *in dat us* 'in that house', but this in itself is not sufficient to rescue the sentence. What is apparently needed is that *niet dikkerst* be separated from *niet* by a simple *n*-constituent such as *niemand* (cf. (14g), and also (14c)):

(14)   f.   *dat ter niemand niet dikkerst in dat us niet gewerkt eet

niet dikkerst nie: ??DN/*NC

that there no one not often in that house not worked has

DN: 'that no often did anyone NOT work in that house'

g.   dat der niet dikkerst niemand in dat us niet gewerkt eet

niet dikkerst niemand nie: NC

that there not often no one in that house not worked has

'that not often has anyone worked in that house'

Furthermore, the problem with (14d) is also not directly due to the fact that *niemand* precedes *niet dikkerst* as shown by (14h), which only contains the sequence *niet dikkerst niet* and is ungrammatical with the NC reading. Once again, replacing *niet* by *niet meer* leads to a

grammatical sentence with an NC reading (14i). (14h) again shows that it is not the adjacency

of *niet dikkerst* and *niet* that blocks the NC reading: simply inserting a constituent between

niet dikkerst and *niet* is not sufficient to save the NC reading (14j).

(14)   h.   *da Valère doa niet dikkerst niet gewerkt eet   *niet dikkerst nie:*??DN/*NC

                  that Valère there not often not worked has

                  DN: 'that Valère has not often NOT worked there'

        i.   da Valère doa niet dikkerst niet meer gewerkt eet

                                            niet dikkerst niet meer: NC

                  that Valère there not often not more worked has

                  'that Valère has not often worked there any more'

        j.   da Valère niet dikkerst in Gent niet *(meer) gewerkt eet

                  that Valère not often in Ghent no *(more) worked has

                  'that Valère has not often worked in Ghent any more'

Data such as those in (14) can be multiplied. What emerges from (14) is that though complex

n-constituents such as *niet dikkerst* 'not often' can participate in NC readings, they cannot do

so if they constitute the *n*-word that is closest to the sentential negator *niet.* Instead, these *n*-

constituents can only participate in an NC relation with *niet* if they are separated from *niet* by

a simple *n*-constituent such as *niemand.* No such 'anti-locality' constraint applies to *niemand*

(14a) or to the other simple *n*-words such as *nooit* 'never', *niets* 'nothing' or *nieverst*

'nowhere' (15a-c). (15d) shows that the presense of a *geen*-NP between *niet dikkerst* 'not

often' and *niet* does not suffice to yield an NC reading.

(15)   a.   da Valère nooit niet gewerkt eet   *nooit nie:* NC

              that Valère never not worked has

              'that Valère has never worked'

        b.   da Valère niets niet gezeid eet   *niets nie*: NC

              that Valère nothing not said has

              'that Valère has not said anything.'

        c.   da Valère nieverst niet over geklaapt eet   *nieverst nie*: NC

              that Valère nowhere not about talked has

              'that Valère has never talked about anything'

        d.   *da Valère niet dikkerst over geneenen student niet geklaapt eet

                                          *niet dikkerst geenen student niet: *NC

              that Valère not often   about no   student not talked   has

For completeness' sake, note that there is no adjacency requirement between the simple *n*-constituent and *niet,* as already shown by (14g), but see section 5.4.2. for further discussion.

The restriction on the creation of NC readings for complex *n*-constituents such as *niet dikkerst* also applies to *n*-constituents containing the negative quantifier *geen* 'no'. We illustrate this point in (16). We have already seen in (15c) see that *nieverst* and *niet* can enter into an NC relation. The *n*-constituent *geneenen student*[xv] cannot enter into an NC relation with *niet* (16a), but it can do so when it is separated from *niet* by *nieverst* (16b) in which *geneenen student* 'no student' and *nieverst* 'nowhere' and *niet* enter into an NC relation. Alternatively, if *niet* is replaced by *niet meer* (16c), the sentence is also grammatical with an NC reading.

(16) a. *dat ter geneenen student over zukken dingen niet klaapt

geneenen student nie: ??DN/*NC

that there there no student of such things not talks

DN: 'that no student does NOT talk about such things'

b. dat ter geneenen students nieverst niet over klaapt

geneenen student nieverst nie: NC

that there no student nowhere not about talks

'that no student has talked about anything'

c. dat ter geneenen student over zukken dingen niet meer klaapt

geneenen student niet meer: NC

that there no student of such things not more talks

'that no student talks about such things any longer'

3.3.2.2. Implications for an MA Analysis

The data above show that WF NC is sensitive to the type of *n*-constituents involved and to

their relative positions. Because all *n*-constituents (*niemand, niet lange, niet dikkerst, niet, niet*

meer, geen-NP *etc.*) can enter into an NC reading in some types of combinations, Zeijlstra's

(2004, 2008) MA analysis would lead us to expect that they can always enter into an Agree

relation with the relevant negative operator, and it is not clear how the application of MA as

formulated as a one time across-the-board procedure can "distinguish" acceptable

combinations from unacceptable ones. In (17) we provide schematic representations of some

of the data above to illustrate this point. On an MA approach it will be the case that *niemand,*

niet dikkerst and *niet* can enter into an NC relation in (17a), while this is not possible in (17b),

which clearly is a problem for an MA approach.

(17) a.   dat er doa [NegP [iNEG] niet dikkerst [uNEG] niemand [uNEG] niet [uNEG] .. eet]

b.   *dat er doa [NegP [iNEG] niemand [uNEG] niet dikkerst [uNEG] niet [uNEG] .. eet]

As we see from (17), WF NC is subject to a locality condition, a property that is crucially

absent from the formulation of MA. It is therefore not clear that the MA account can handle

these co-occurrence restrictions, which are ignored in Zeijlstra's work (2004, 2008).[xvi] In

section 5 we develop our own proposal to derive NC readings in WF, using a modified

version of Haegeman and Zanuttini's (1996) proposal cast in terms of binary Agree.

3.3.3. Empirical problems (II): DP-internal negative concord

WF also displays DP-internal NC. This was illustrated in (8) above and is also shown in

(18a). We want to say that *niet vele* and *geen* enter into an Agree relation, because *geen* can

only be present in the DP by virtue of the negative property of *niet vele* as shown in (18b) (cf.

Haegeman 2002a).

(18) a.   niet vele   geen boeken

not many (no)   books

'not many books'

b.   *vele geen boeken

In (18a) *niet* negates the quantifier *vele*. *Geen* itself does not express a quantificational

negation of the nominal constituent: *niet vele geen boeken*, literally 'not many no books', can

only mean 'not many books' and it can never be interpreted as meaning 'no books', nor can it mean 'many books'. One might propose that *geen* bears the [uNEG] feature, that *niet* in *niet vele* bears the [iNEG] feature, and that [uNEG] is subject to DP-internal checking as in (18c,d):

(18) c.   niet vele [iNEG]   geen [uNEG] $\Rightarrow$Agree

  d.   niet vele [iNEG]   geen [~~uNEG~~]

However, the resulting complex *n*-constituent *niet vele geen boeken* will then carry an [iNEG] feature (18d). Thus, following Zeijlstra's (2004) account, the *n*-constituent should contribute its own negative value to the clause.[xvii] This has two consequences. (i) If NEG-movement of *n*-constituents is driven by [uNEG], the resulting *n*-constituent (18a), with the feature content in (18d), should not be subject to NEG- movement, since it no longer contains an unchecked [uNEG]. (ii) The *n*-constituent (18a) should not enter into an NC relation with other *n*-constituents in the clause. Bearing [iNEG], the *n*-constituent should give rise to a double negation reading if it is c-commanded by the clausal negative operator with the [iNEG] feature. These predictions, which follow from the standard assumption that when valuation has happened, the valued item is not able to enter into further Agree relations (Chomsky 2000 *et seq*) or to undergo further movement (for extensive arguments see Bošković 2007 and Boeckx 2007, 2008) are both incorrect.

First, just like any other *n*-constituent, the constituent in (18a) must undergo NEG-movement (see also fn. 6):

(18) e.   *dan ze   ketent   van niet vele geen boeken zyn

        that they contented of   not many no   books are

f.   dan ze   va niet vele   geen boeken ketent   zyn

that they of not many no   books   contented are

'that they are not pleased with many books'

Second, just like *niemand*, *niet* etc., for which we assume, following Zeijlstra (2004, 2008), that they bear [*u*NEG], *niet vele geen boeken* 'not many books' may enter into an NC relation with other *n*-constituents: in (19) *niet vele geen boeken* enters into an NC relation with *nooit* 'never' and with *niemand* 'no one':

(19)   Ier   en   leest   er   nooit   niemand niet vele   geen boeken.

here (*en*) reads there never no one   not many no   books

'No one ever reads many books around here.'

So since *niet vele geen boeken* undergoes NEG-movement, and is able to enter into an NC relation, (18c,d) above cannot be correct. That is, [*u*NEG] must remain active and must not have been valued and deleted DP-internally.

An alternative would be to assume that both *niet vele* and *geen* bear [*u*NEG], basically along the lines of Zeijlstra's proposals for NC at the clausal level. Under MA, then, they would enter into an Agree relation with the [*i*NEG] feature of the clausal negative operator:[xviii]

(20)   a.   [OP [*i*NEG] [$_{Neg}$ [$_{vP}$ [niet [*u*NEG] vele   geen [*u*NEG]…]]]] $\Rightarrow$ Agree

b.   [OP [*i*NEG] [$_{Neg}$ [$_{vP}$ [niet [*u*NEG] vele   geen [*u*NEG]…]]]]

(20) represents both *geen* and *niet vele* as being checked by (hence directly related to) the [iNEG] feature of the negative operator but it fails to capture their observed DP-internal interdependency. The MA analysis would provide (21a) with the representation in (21b), again with no dependency between the DP-internal [uNEG] on *niet vele* and that on *geen.*

(21)   a.   T'eet ier   niemand niet vele   geen   boeken.

            it has here no one   not many no   books

            'No one has many books here.'

       b.   [$_{NegP}$OP[iNEG] [niemand [uNEG] [niet vele[uNEG] [geen[uNEG] boeken]]]]
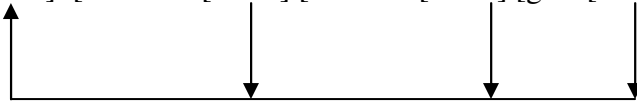
But the availability of *geen* does depend on that of *niet vele*: (21a) does not have a variant in (21c) in which *geen* is directly dependent on the sentential negation, with MA applying as shown in (21d,e):


(21)   c.   *T'eet ier   niemand vele   geen boeken.

             it has here no one   many no   books

       d.   *[OP [iNEG] [$_{Neg}$ niemand [uNEG] [$_{vP}$ vele geen [uNEG]…]]] $\Rightarrow$ Agree

       e.   *[OP [iNEG] [$_{Neg}$ niemand [uNEG] [$_{vP}$ vele geen [uNEG]…]]]

As DP-internal *geen* in (21) is seen to depend on the presence of the DP-internal negative *niet,* what is required instead of (21e) is a representation as in (21f) in which we can first establish an Agree relation between the uninterpretable [NEG] features on both *geen* and *niet vele*, prior to establishing the NC relation with the negative feature on *niemand.*

(21)   f. $[_{\text{NegP}}$ OP $[i\text{NEG}]$ … $[_{\text{vP}}$ niet $[u\text{NEG}]$ vele $[_{\text{vP}}$ geen $[\bcancel{u\text{NEG}}]$ …
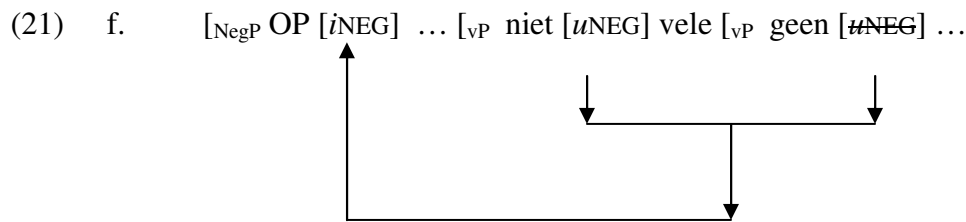
If DP-internal NC is analyzed as a process relating two *n*-constituents each of which bears [*u*NEG], this leads to the hypothesis that Agree can be established between items with [*u*NEG].

3.4.   Summary

We have shown in this section that apart from the conceptual issue concerning the role of locality, the MA approach to NC has a number of empirical shortcomings when applied to WF, which we summarize briefly:

        (i) it fails to predict the binary matching restrictions on NC;

         (ii) it fails to provide a separate application for NC/MA in cases of DP-internal NC.

In what follows we will show how these two problems can be dealt with by an alternative approach to NC in terms of binary Agree.

4.   Negative Concord is Binary Agree (in West Flemish)

4.1.   Agree

One of the outcomes of our discussion in section 3 is that in order to capture the observed locality restrictions on WF NC in terms of Agree we need to abandon Zeijlstra's 'across-the-board' MA and to revert to binary Agree. Furthermore, to accommodate DP-internal NC we need to be able to establish an Agree relation between [*u*NEG] features. In this section we outline the conception of Agree[xix] which we will implement in section 5.

We propose the following informal definition (building in particular on Pesetsky and Torrego 2007: 268):[xx, xxi]

(22) **Agree**: α Agrees with β if α c-commands β, α and β both have a feature F and there is no γ with the feature F such that α c-commands γ and γ c-commands β.

The locality condition in the latter half of the definition ('and there is no …') will allow us to account for cases in which NC is disallowed. We return to this point presently. Before doing so, we point out that crucially for our purpose, our definition of Agree allows for agreement between two uninterpretable/unvalued features[xxii] (see also López 2008 for a different implementation of the same idea). Pesetsky and Torrego (2007) elaborate on this point as follows:

> If value assignment is allowed to apply vacuously, the derivation on this view contains two unvalued occurrences of F before Agree, and contains exactly the same two unvalued occurrences of F after Agree. If the feature sharing view is correct, however, Agree between two unvalued occurrences of F […] is far from vacuous, since its output will be a structure that contains only one occurrence of F with two instances. (Pesetsky and Torrego 2007: 269)

In an Agree relation between uninterpretable features, it is difficult to say which is the Probe and which is the Goal, and whether there is a Probe-Goal relationship at all between the two features. Pesetsky and Torrego (2007: 269, fn. 9) acknowledge this, and say that 'when Agree applies between two unvalued occurrences of a feature, inspection of the output cannot reveal whether the goal replaced the probe, or vice versa'. We depart from their proposal in that we

do not adopt a feature sharing view and that we assume that after Agree between two uninterpretable features, the uninterpretable feature survives on the higher element. An Agree relation that is allowed in principle by (22) but which must be ruled out on independent grounds is that between two interpretable features. That should be excluded because if Agree reduces the agreeing features to one, this would in effect mean deleting interpretable features, i.e. information that has to be retained (cf. Chomsky's 1995 notion of Full Interpretation).

Schematically, our proposal can be illustrated as follows.

(23) a. [α   [β   [γ]]]

          iF uF uF

                    └─────────────┘   ⇒   Agree

      b. iF uF   ⇒   Agree

      c. iF
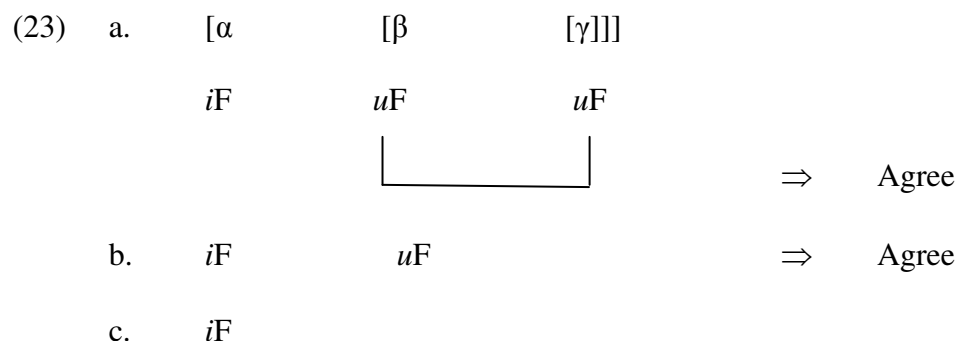
In (23), β c-commands γ and according to (22), by virtue of their shared feature (F), they are able to Agree, eliminating the lowest feature ([uF]). The topmost [uF] on β survives and, given that α c-commands β, it is able to Agree with [iF] on α. On this approach, Agree operates 'step-wise' and locally.[xxiii]

4.2.   NC as Binary Agree

Returning to NC, a schematic representation of how binary Agree can derive NC is given in (24). We use strike-through to indicate that only one of the [uNEG] features survives after Agree. Stepwise Agree results in there being just one [iNEG] feature left.

(24) a.   [C [uNEG]] [D [uNEG]]   ⟹   Agree

      b.   [C [uNEG]] [D [~~uNEG~~]]   Merge [B [uNEG]]

      c.   [B [uNEG]] [C [uNEG]] [D [~~uNEG~~]]   ⟹   Agree

      d.   [B [uNEG]] [C [~~uNEG~~]] [D ~~uNEG~~]]   Merge [A [iNEG]]

      e.   [A [iNEG]] [B [uNEG]] [C [~~uNEG~~]] [D [~~uNEG~~]]   ⟹   Agree

      f.   [A [iNEG]] [B [~~uNEG~~]] [C [~~uNEG~~]] [D [~~uNEG~~]]

5.   Decomposing *N*-words in West Flemish: Our Proposal

In this section we propose an analysis of NC in WF based on a particular feature

decomposition of the *n*-words. We should stress at the outset that our proposal is restricted to

WF. Although we are convinced that our analysis can ultimately be extended to other NC

languages, it is not clear to us at this point that it can capture all cross-linguistic variation in

NC (see Giannakidou 2006 for discussion of variation across NC languages). We plan to

return to the comparative aspect in future work.

5.1.   A 'Maximization' Requirement on NC

Haegeman and Zanuttini (1996: 143) describe the co-occurrence restrictions on NC in some

detail. They classify WF *n*-constituents in terms of their internal structure and feature

composition. We do not repeat their discussion, but simply provide table (25), which shows

their classification of the *n*-constituents with the associated features (from Haegeman and

Zanuttini 1996: 145). The bare quantifiers such as *niemand* and *niets* correspond to our simple

n-words. In (25), [Q] is a quantificational feature, '*yes*' means that a NC reading is possible,

'*no*' that it is not possible .

(25)   *Head features on negative elements and co-occurrence restrictions*

	Bare Q [NEG, Q]	*Geen*-NP [Q]	*Niet* [NEG]
Bare Q [NEG, Q]	yes *niemand niets* no one nothing	yes *niemand geen geld* no one no money	yes *niemand niet* no one not
Geen-NP [Q]	yes *geen men's niemand* no person no one	yes *geen mens geen tyd* no person no time	no *geen mens niet* no person not
Niet meer [Q]	yes *niemand niet meer* no one no more	yes *geen mens niet meer* no person no more	no *niet meer niet* no more not

Haegeman and Zanuttini (1996) derive NC by means of NEG factorization which extracts the negative component from all the items involved. This factorization operates in a stepwise binary fashion: rather than (26a) with an across-the-board factorization, they propose a pairwise factorization as in (26b):[xxiv]

(26)   a. $[x\neg][y\neg][z\neg]$ $\Rightarrow$ $[[x, y,z]\neg]$

       b. $[x\neg][y\neg][z\neg]$ $\Rightarrow$ $[x\neg][[y, z]\neg] \Rightarrow [[x,y, z]\neg]$

The precise conditions under which pairwise factorization operates are not clear, and it's not straightforward how it could be implemented to derive the restrictions seen in (25).

We see that the internal make-up of *n*-constituents plays a role in determining how they enter into NC relations. Starting from Haegeman ans Zanuttini's classification, we propose here that WF *n*-words be composed featurally as in (27): [xxv]

(27) a.   *niet* $[u\text{NEG}, u\text{Q}]$ 'not'

       b.   *niemand* $[u\text{NEG}, i\text{Q}]$ 'no one'

       c.   *geen*-NP $[u\text{NEG}]$ 'no NP'

       d.   *niet meer* $[u\text{NEG}]$ 'no more'

       e.   *niet dikkerst* $[u\text{NEG}]$ 'not often

These items enter into NC relations as follows:

(28) a.   *niemand*   *niet*

             $[u\text{NEG}, i\text{Q}] + [u\text{NEG}, u\text{Q}]$

       b.   * *niet dikkerst + nie*

             $[u\text{NEG}]$ $+[u\text{NEG}, u\text{Q}]$

       c.   * *geen*-NP   + *nie*

             $[u\text{NEG}]$ $+[u\text{NEG}, u\text{Q}]$

       d   * *niet meer* + *nie*

             $[u\text{NEG}]$ $+[u\text{NEG}, u\text{Q}]$

       e.   *niemand*   + *geen*-NP

             $[u\text{NEG}, i\text{Q}]$ $+ [u\text{NEG}]$

       f.   *niemand*   + *niet meer*

             $[u\text{NEG}, i\text{Q}]$ $+ [u\text{NEG}]$

Based on the patterns displayed in (28), NC (and its formalization in terms of Agree) seems to be subject to a maximization requirement, in the sense that with its two uninterpretable features *niet* can only match and undergo Agree with an item in which both these features are instantiated. A match of *niet* with the simple *n*-constituent *niemand* is possible, the latter combining an [*u*NEG] feature with an [*i*Q] feature, but the match with a complex *n*-constituent is not possible because the latter lacks the quantificational feature. It looks as if, due to the lack of maximal matching, [*u*Q] of *niet* remains unchecked in (28b)-(28d). The same problem does not arise for NC between *niemand* with its two features [*u*NEG] and [*i*NEG] and the complex *n*-constituents with their one feature [*u*NEG]: even though *niemand* does have one additional feature, [*i*Q], the latter is interpretable and hence need not be checked by Agree (28e,f).

The feature composition in (27) gives us the right results to derive NC readings, but at this stage the feature sets are simply postulated in order to do just that. In part based on Haegeman and Zanuttini (1996: 143-145), section 5.2 motivates the feature composition of the *n*-constituents in (30), using semantic, morphological and syntactic criteria.

5.2.   Motivation for the Decomposition

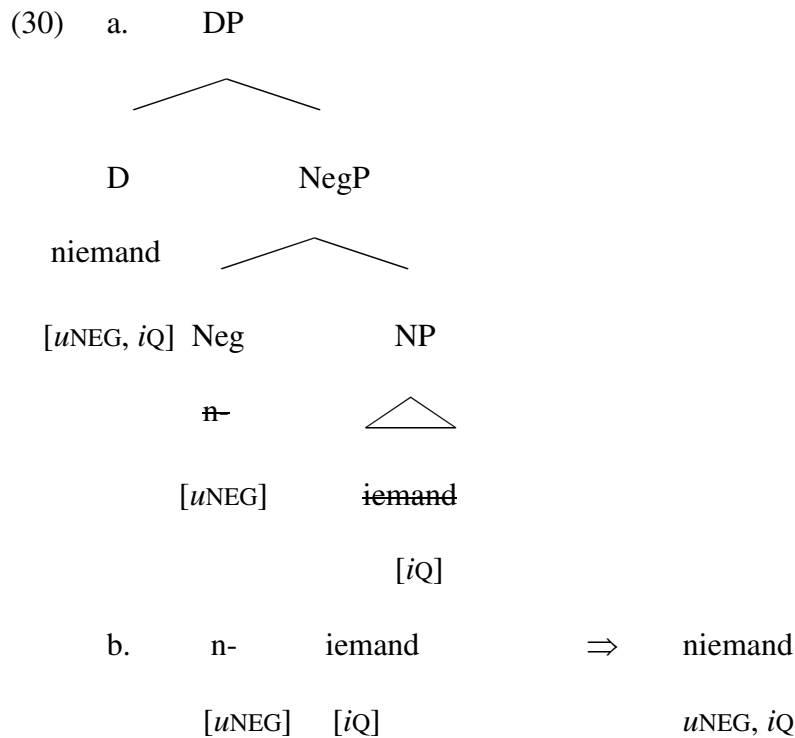5.2.1. Simple *N*-words

Simple *n*-words such as *niemand* 'no one' and *niets* 'nothing', are the negative counterparts of the (Standard Dutch) quantifiers *iemand* 'someone' and *iets* 'something'. [xxvi]

(29)   quantifier   negative quantifier

        iemand 'someone'   *niemand*   'no one'

        iets   'something'   *niets*   'nothing'

We propose that in the quantifiers *iemand* 'someone' and *iets* 'something', *–ie* spells out the quantificational component, and has [iQ]. We assume that *iemand* occupies a functional head in the nominal domain and moves to D.

In simple *n*-words such as WF *niemand, n-* spells out [uNEG][xxvii] and is merged with *iemand* 'someone' through head movement, and this complex ends up in D.[xxviii] The syntactic structure is given in (30) (see Haegeman 2002a, Troseth 2009 and Aelbrecht to appear for NegP within DPs).

(30) a. DP

     D   NegP

niemand

[uNEG, iQ] Neg   NP

       ~~n-~~

      [uNEG]   ~~iemand~~

             [iQ]

   b.   n-   iemand $\Rightarrow$ niemand

       [uNEG]   [iQ] uNEG, iQ

Crucial for our account is Haegeman and Zanuttini's (1996) hypothesis that the [iQ] feature in *niemand* is available on the topmost layer of the DP, and hence remains accessible at future derivational steps. Because [uNEG] remains to be valued, the *n*-words are still visible for further operations after the derivation in (30b).

5.2.2. The Sentential Negator *Niet*

Following Zeijlstra (2004, 2008) and Penka (2007a,b, to appear) we assume that sentential negation is encoded in an abstract operator associated with an [iNEG] feature. With Zeijlstra (2004, 2008) we assume that the marker of sentential negation, *niet*, bears a [uNEG] feature, which will be eliminated by Agree with the clausal [iNEG] feature. See Zeijlstra (2004, 2008) and Penka (2007a,b, to appear) for arguments.

In addition, however, we propose that *niet* carries [uQ]. The association of a quantificational feature with *niet* is morphologically motivated. Specifically, we suggest that *niet* is decomposed as *n + iet*, parallel to *niets*.[xxix] Following up on the discussion in the preceding section, *niet* is part of the paradigm of simple *n*-words containing *nie: niemand* 'no one', *niets* 'nothing', and also *nieverst* 'nowhere'.
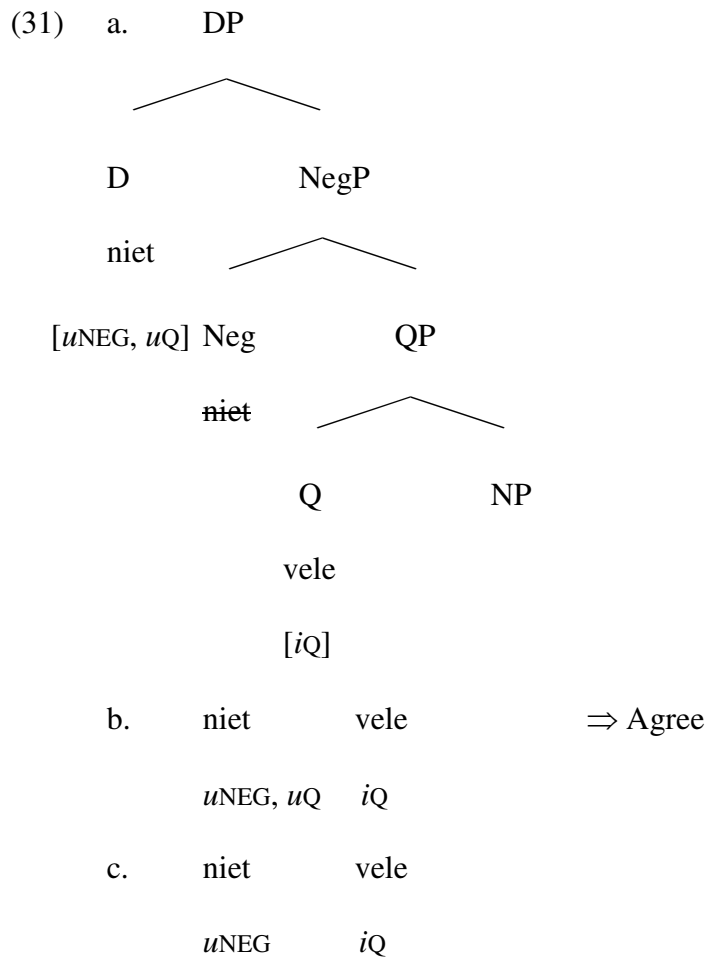
In stage II of Jespersen's cycle in Middle Dutch a sentential negative marker *niet* developed from the negative indefinite *niet* 'nothing' , which was used adverbially, and it became a reinforcer of sentential negation 'not at all', which was originally expressed solely by the preverbal negative marker (see e.g. van der Auwera and Neuckermans 2004, Breitbarth and Haegeman 2008). We speculate that the development of the adverbial reinforcer into a marker of sentential negation involves a feature change: [iQ] associated with *–ie* changes into [uQ]. For discussion of grammaticalization in relation to the diachronic development of negation see van der Auwera and Neuckermans (2004) and in particular van Gelderen (2008).

With its two features [uNEG, uQ], *niet* enters into an NC relation with negative quantifiers such as *niemand, niets*, which also display the two features. Postulating that *niet* carries the feature set [uNEG, uQ], however, has as a consequence that the clause must also contain a matching feature set [iNEG, iQ], This means that the negative operator bears [iNEG, iQ]. In other words, only if both features are instantiated on the negative operator will the uninterpretable features of *niet* be able to be checked. We understand this to mean that what is

labeled 'sentential negation' is not merely a negative feature scoping over the clause but rather it involves negative quantification over events.

5.2.3. Complex *N*-constituents

According to (27) the feature specification of complex *n*-constituents such as *niet dikkerst* 'not often', *niet* meer 'no more' *niet vele* 'not many', differs from that of *niet*. This might appear rather surprising since these *n*-constituents contain the formative *niet* and we would *a priori* want *niet* as the marker of sentential negation and *niet* in complex *n*-constituents such as *niet vele* 'not many' to be the same formative, with [*u*NEG, *u*Q]. We will indeed assume that, like the marker of sentential negation, *niet* in complex *n*-constituents bears the features [*u*NEG, *u*Q]. In addition, however, we propose that these complex *n*-constituents contain a quantificational element. For instance, in *niet vele* 'not many' we assume that *vele* 'many' has a quantificational feature which has to be interpretable because the ability to quantify is inherent to this item. Since *niet* negates *vele* in *niet vele* we also assume that *niet* c-commands *vele* and is the specifier of a DP-internal NegP (Haegeman 2002a). On the basis of this decomposition, the [*u*Q] feature on *niet* can be checked off internally to the *n*-constituent as shown in the simplified structure in (31). We assume, following Haegeman (2002a), that *niet* moves from Neg to D.[xxx]

(31)   a.   DP

```
          DP
         /    \
        D      NegP
       niet    /   \
   [uNEG, uQ] Neg   QP
            n̶i̶e̶t̶   /   \
                  Q     NP
                 vele
                 [iQ]
```

   b.   niet   vele   ⇒ Agree

          *u*NEG, *u*Q   *i*Q

   c.   niet   vele

          *u*NEG   *i*Q

We assume that [*i*Q] is too deeply embedded to take part in further Agree operations at the

clausal stage. That is, at the next derivational step, only the feature [*u*NEG] is visible. The

precise implementation of this idea requires that we postulate that DPs are phases and that D

is the relevant phase head (Svenonius 2004: 267, Chomsky 2007: 26). We assume that QPs in

WF are merged below the D head, and, following Haegeman (2002), that NegP is merged at

the top of the DP. Chomsky's Phase Impenetrability Condition (Chomsky 2001) allows for

Agree across a phase boundary until the next phase is merged. This means that when the

verbal phase head is merged in the clause, a Probe in the higher phase is unable to Agree with

vele, which is not in the accessible domain of the lower phase.[xxxi]

       We assume that a similar derivation can extend to the complex negative adverbials

such as *niet dikkerst* 'not often', *niet meer* 'no more' etc. [xxxii] This assumption has important

consequences for the internal makeup of such constituents, but for reasons of space we cannot discuss this issue further here.

5.2.4. *Geen*-NPs

Like the *n*-constituents discussed in the preceding section, *geen*-NPs are both quantificational and negative. Once again, though, unlike simple negative quantifiers such as *niemand* 'no one', they do not enter into NC with *niet*. We assume, as was the case for *niet vele*, that *geen*-NPs differ from simple negative quantifiers in that their quantificational feature is not instantiated on the head of the phrase. Haegeman and Zanuttini (1996: 144) present some evidence in favor of this. First, in the singular the *geen*-NP has two variants, as shown in (32). In (32b) – which is the emphatic variant of (32a) the negative element *gen* is distinguished morphologically from the quantificational element *eenen* (see also Kranendonk 2006):

(32)   a   geenen boek

                   No book

         b   gen-eenen boek

                   no   one   book

Geneenen is composed of the quantificational *eenen* and the negative prefix *gen*. The singular indefinite article *eenen* corresponds to a zero quantifier in the plural (33a). (33) illustrates the decompositions.[xxxiii]

(33)		Singular	Plural
a.	affirmative	*eenen boek*	*Ø boeken*
b.	negative	*gen- eenen boek*	*geen Ø boeken*

Second, WF has DP-internal NC (34), as seen above. In (34), the quantificational force of the phrase is expressed by the quantifier *niet vele* and *geen* simply acts as a negative element entering into NC with the negative component of the negated quantifier *niet vele*.

(34)   niet vele geen boeken

      not many no books

      'not many books'

We propose to align *geen* with *niet,* so that *geen* has both an [uNEG] and an [uQ] feature. The [uQ] feature on *geen* would be valued DP-internally under Agree with [iQ] on *eenen* or on a non-overt article.

(35)   a.   gen-   eenen   boek

               no   one   book

               [uNEG, uQ] [iQ]

     b.   geen   Ø   boeken

               no   books

               [uNEG] [iQ]

5.3   Maximization and Intervention

In terms of the feature sets proposed in (27) in section 5.1, the restrictions on NC in (28) suggest that NC is subject to a maximization condition (see Chomsky 2001) in that *nie̯* with its [uNEg] and [uQ] features can only enter into an NC relation with simple *n*-constituents also instantiating both an accessible [NEG] feature and an accessible [Q] feature. The present

section shows that this maximization requirement can be made to follow from intervention. Intervention occurs in a case where α and β share a feature F but in which there is a γ such that α c-commands γ and γ c-commands β and γ both have the feature F with β (cf. (22)). In this case γ will be an intervener and block the Agree relation between α and β.

Consider (36) where the *n*-constituents will enter into NC. Our definition of Agree will allow both uninterpretable features on *niet* to be checked by the features on *niemand*; after Agree [*u*NEG] survives only on *niemand*. In turn, the surviving [*u*NEG] will agree with [*i*NEG] of sentential negation. (36) is a case in which the feature sets of *niemand* and of *niet*, the agreeing items, are maximally identical

(36)	α	γ	β	
	OP	niemand	niet	
	[*i*NEG, *i*Q]	[*u*NEG, iQ]	[*u*NEG, *u*Q]	$\Rightarrow$ Agree [*u*NEG, *u*Q]
	[*i*NEG, *i*Q]	[*u*NEG, iQ]		$\Rightarrow$ Agree [*u*NEG]
	[*i*NEG, *i*Q]	[iQ]		

In (37), there is no maximal agreement between γ and β and NC is not available.

(37)	α	γ	β
	OP	niet vele	niet
	[*i*NEG, *i*Q]	[*u*NEG]	[*u*NEG, *u*Q]

The absence of NC in (37) can be derived as a result of intervention (Rizzi 1990).[xxxiv] Agree can apply to γ (*niet vele*) and β (*nie*), resulting in a configuration that will only delete [*u*NEG]

on β (*nie),* stranding [uQ] there. [uNEG] survives on γ (*niet vele),* the c-commanding *n*-constituent. We use strikethrough here to show the effect of Agree.

(38)   a.   γ   β

       niet vele   niet

       [uNEG]   [uNEG] [uQ]   ⇒ Agree [uNEG]

       [uNEG]   [~~uNEG~~] [uQ]

                    ⟷
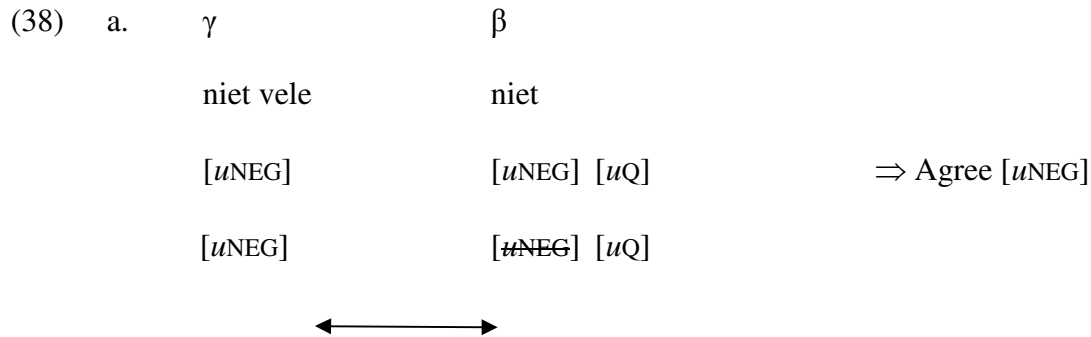
The next step of the derivation involves the merger of sentential negation:

(38)   b.   α   γ   β

       OP   niet vele   niet   ⇒ Agree [uNEG]

       [iNEG, iQ]   [uNEG]   [uQ]   ⇒ *Agree [uQ]

                    ⟷
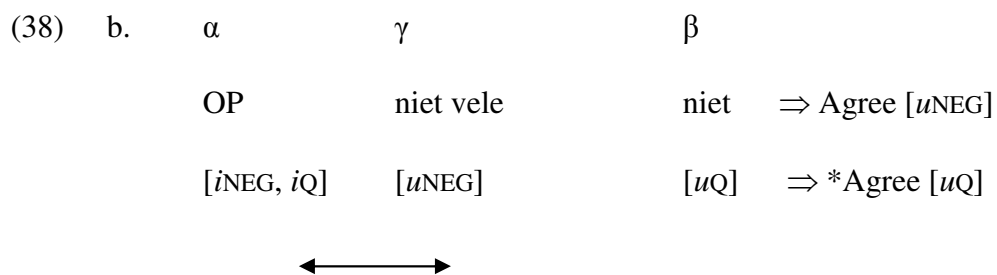
In (38b), [uNEG] on γ (*niet vele*) Agrees with [iNEG] on α (OP). However [uQ] on β (*nie*) cannot be valued by [iQ] on α (OP) because [uNEG] on the c-commanding γ (*niet vele*) intervenes. We are assuming that [NEG] and [Q] belong to the same feature classes (cf. Starke 2001, Rizzi 2004 on the latter). (38b) instantiates a classic case of intervention: OP (α) c-commands *niet vele* (γ) and *niet vele* c-commands *niet* (β); *niet vele* is a closer Goal sharing a feature of the relevant class with *niet* .

   Thus we see that the locality condition on Agree derives the maximization requirement on items entering into NC. We take this to be a welcome result because it means that we do not have to stipulate maximization.[xxxv]

5.4.   Illustrations and Extensions

5.4.1. Some Examples

The application of binary Agree to derive NC in (39) shows that there is no adjacency
requirement on NC: in this example *niet vele* and *niet meer* enter into NC while being
separated by the PP *tegen Valère*. We assume that the features of the latter constituent belong
to a different feature class in the sense of Starke (2001) and Rizzi (2004) and will not give rise
to intervention.

(39)   a.   da Jan niet vele tegen Valère niet meer klaapt

                that Jan not much to Valère not more talks

                'that Jan doesn't talk to Valère much any more'

        b.   da Jan [[*i*NEG, *i*Q] niet vele [*u*NEG] tegen Valère niet meer [*u*NEG] geklaapt ...

We have shown that NC also applies DP-internally in WF. (40a) is an illustration and the
derivation of the NC reading is given in (40b-c):

(40)   a.   niet vele   geen boeken

                not many no   books

                'not many books'

        b.   niet   vele

                [*u*NEG, *u*Q]   [*i*Q] $\Rightarrow$ Agree [*u*Q] and [*i*Q]

        c.   niet vele

                [*u*NEG, *i*Q]

d.   niet vele [uNEG iQ]   geen [uNEG, iQ] $\Rightarrow$ Agree [uNEG]

      niet vele [uNEG, iQ]   geen [iQ]

Niet vele geen boeken retains [uNEG, iQ] and can then enter into further NC relations in the clause, but like *geen boeken,* it cannot enter into NC with *niet*. Recall that when the *v*P is merged in the clause, the complement of D is spelled-out. This makes the [iQ] features on *vele* and on *geen* unavailable. Thus the [uQ] feature on the clausal *niet* will remain unchecked and thus the derivation will crash.

(41)   Ier   en leest er   nooit niemand niet vele geen boeken niet *(meer).

       here *en* reads there never no one   not many no   books   not *(more)

       'No one ever reads many books around here.'

Notice that this also explains why *vele geen boeken* (cf. (18)) is disallowed. In this case, *geen* will have an unchecked [uNEG] feature, and since there is no other *n*-word within the DP, when the clausal *v*P is merged, this unchecked feature will be spelled out (because it is located in D's complement), thus causing a crash.

5.4.2. Further Intervention Effects

Our approach correctly predicts that non-negative quantifiers may also interfere with the various Agree-relations between the *n*-constituents undergoing NC[xxxvi] (cf. also Haegeman and Zanuttini (1996)). While a definite DP does not give rise to intervention in (42a), the quantifier *alles* disrupts the NC relation between *niemand* and *niet* in (42b):

(42)   a.   dat ter niemand die boeken niet kent   *niemand nie*   NC

that there no one those books not knows

'that no one knows those books'

b.   dat ter niemand alles niet kent   *niemand nie*   *NC

that there no one everything not know

c   OP   niemand   alles   nie

[$i$neg, iQ]   [$u$neg, iQ]   [iQ]   [$u$neg, uQ]   AGREE [uQ]

*AGREE [uNEG]

This follows straightforwardly. The quantifier *alles* 'all' has [iQ]. This feature will be able to check [uQ] of *niet.* The stranded [uNEG] feature on *niet* will then no longer be available for Agree (because of intervention), and thus the NC reading cannot be derived. [xxxvii]

6.   Conclusion

In the present paper we have shown how a detailed analysis of negative concord in West Flemish questions the validity of Multiple Agree as a mechanism to derive negative concord. At a more general level, the data also challenge the validity of Multiple Agree as an operation of narrow syntax.

    Instead of Multiple Agree as an across-the-board phenomenon, we have argued that the simpler and less powerful Agree mechanism, which is binary and strictly local, is superior in deriving the data in question. Agree in its original format as a binary operation offers a way of dealing with the various intervention effects found in West Flemish negative concord.

    Our proposal has conceptual and empirical consequences that we hope to return to in future work. In particular, on the conceptual side, we would like to examine whether other cases that have been accounted for in terms of Multiple Agree can be re-analyzed in terms of

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our proposal. On the empirical side, it would be interesting to enquire if the cross-linguistic variations among NC patterns described in Giannakidou (2006) and the diachronic development and grammaticalization of *n*-constituents ('Jespersen's cycle') can be captured in relation to the feature content of *n*-constituents.

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[i] The fact that the negative expressions *nooit* 'never' and *niets* 'nothing' express a single negation is often referred to as 'negative spread', with negative concord being reserved to the relation between *en* and *niet* and the *n*-constituents (cf. den Besten 1989). We will not make this distinction and use the term negative concord to refer to any context in which multiple negative constituents express a single sentential negation.

[ii] (1) also contains the morpheme *en* which, though related to the expression of sentential negation, is not able to express sentential negation all by itself. We discuss it briefly in section 2.1.

Except when absolutely sentence final, when both [nit] and [ni] are found, *niet* is usually pronounced [ni]. This is why *niet* has often been given as *niet* in the literature. Here we stick to the spelling *niet*.

[iii] Our paper remains agnostic on whether there is a functional projection NegP. As far as we can see, this issue, though relevant of its own accord, does not bear on the current discussion.

[iv] See Brown (1999: 29ff) for an earlier proposal that *n*-words carry an [*u*NEG] feature. Brown's discussion of WF, however, lacks detail and we cannot assess it here (1999: 43-4).

[v] Giannakidou (2006: 328) defines *n*-words informally as in (i).

(i)   *N*-word:

An expression α is an *n*-word iff:

a.   α can be used in structures containing sentential negation or another α

expression yielding a reading equivalent to one logical negation; and

b. α can provide a negative fragment answer.

[vi] In reply to a question from an anonymous reviewer, (4b) is ungrammatical because of the presence of *en*, which requires there to be an *n*-constituent with sentential scope. Not having undergone NEG movement, *van niemand* 'of no one' cannot take sentential scope. Without *en* the example would be possible with *van niemand* – with *niemand* stressed - expressing local negation, for instance in the following sequence:

(i)   Kweten juste da   Jan ketent   is van Lieve,

        I know only that Jan pleased is with Lieve

        da   José ketent   is van Jan, en da   Valère   ketent   is van niemand.

        that José pleased is of   Jan, and that Valère pleased is with no one.

        'What I know is that Jan is pleased with Lieve, that José is pleased with Jan, and that

        Valère is pleased with no one'.

See also Haegeman (1997) and Svenonius (2002) for local negation.

[vii] Once again a negated constituent with clausal scope has to undergo leftward movement. For reasons that will become clear in section 3.3.2.1. (discussion of text examples in (17)), we cannot show this by means of the distribution of the relevant constituent with respect to *niet,* such negative constituents being incompatible with *niet.* However, as the contrast in (i) shows, a complex negative constituent which is the complement of an adjective (*ketent* 'contented') must move to the left of that adjective. (See Haegeman 1997 for arguments that this is not simply due to the quantificational nature of the constituent).

(i)   a.   *da Valère ketent   *van geen studenten* en-was

                that Valère contented of   no   students   *en*-was

        b.   da Valère   *van geen studenten* ketent   en-was

                that Valère of   no   students   contented *en*- was

[viii] In the Lapscheure dialect DP-internal NC is never possible with a DP-internal negated non-quantificational descriptive adjective: inside the bracketed DP in (ia), the negated attributive adjective *goed/goej* 'good' does not allow doubling by *geen* (see Haegeman 2002), as shown in (ib). The grammatical variant is (ic). Contrary to claims in Zeijlstra (2004: 111), the pattern we are concerned with cannot be described as *niet A geen N* 'not A no N' but must be described as *niet Q geen N* 'not Q no N'.

(i)   a.   Z'oan   doa   [goej eten].

                they had there good food

        b.   *Z'(en)- een   doa   [niet goed geen eten].

                  they (*en)- have there no good no   food

        c.   Z'(en)- een   doa   [geen goej eten].

                They (*en)- have there no   good food

[ix]   According to Zeijlstra, NC languages (i.e. languages with NegP) have 'syntactic negation', non NC languages (i.e. languages without NegP) have 'semantic negation'. In an NC language overt *n*-constituents have [*u*NEG], while the operator which carries [*i*NEG] is covert. Zeijlstra ties the presence of NegP to the availability of [*u*NEG] features in NC languages. Conversely, in a non NC language the overt *n*-constituents have an [*i*NEG] feature, there are no [*u*NEG] constituents, there is no NegP and there is no non overt negation operator.

        Zeijstra offers a functional explanation for the absence of an overt negative operator in NC languages (2004: 249). For the present discussion, we adopt Zeijlstra's proposals, but see Penka (2007a,b) for a different implementation.

[x] Zeijlstra (2004) assumes that the head of NegP is also associated with an [*u*NEG] feature. This will not play a role in our discussion so we leave it out of our representations for expository reasons.

[xi] A further problem arises with Zeijlstra's analysis of WF *en.* Zeijlstra (2004) assumes that *en* is associated with an uninterpretable feature [*u*NEG], which is licensed under agreement with an interpretable feature on a non-overt negative operator (see below for details),. On his account, the question then arises why (i) is not acceptable.

(i)   a.   *Valère en-klaapt.

        Valère *en*-talks

        b.   *[$_{NegP}$ OP ¬ [iNEG] [$_{vP}$ Valère [$_{v'}$ *en*-klaapt [~~*u*NEG~~]]]] (Zeijlstra 2004: 255)

See 2.1 for a different account that is compatible with the data.

[xii] Similar effects in English are pointed out in Ladusaw (1991: 87), though the author does not offer any explanation. The data discussed by Déprez (2000) are different in that they implicate a pre-verbal/post-verbal asymmetry which is not at issue here.

[xiii] In general DN readings are marked, and where an NC reading is available that will be the default interpretation. For reasons of space, we do not present an analysis of DN readings, but we hope to return to the issue in future work.

[xiv] The final consonant of *meer* 'more' often remains unpronounced.

[xv] See the discussion in section 5.2.4 on the alternation between *geen* and *geneenen*.

[xvi] An approach in which NC is derived by unselective binding of the *n*-constituents by an operator (cf. e.g. Ladusaw 1992, Acquaviva 1993, Piñar 1996, Giannakidou 1997) also does not seem to be able to derive the pairwise relations observed here without additional machinery. In their discussion of NC in Italian dialects, Manzini and Savoia (2008: 91) propose that the binding of several variables by the same quantifier requires that the variables be of the same semantic type and they invoke a system with the features N(eg) and Q. This

requirement is parametrized. Again, this account does not lead us to expect the particular pairwise relations displayed in WF.

[xvii] For full discussion of Zeijlstra's typology see also Biberauer and Zeijlstra (in press).

[xviii] As an anonymous reviewer observes, an MA-analysis could also claim that the [uNEG] of *geen* is too deeply embedded inside the DP-phase for the negative operator to Agree with it. However, it is not clear under an MA-analysis how this embedded [uNEG] would be checked so that it does not cause a crash. One could amend the MA-analysis such that there is MA within the DP, and then MA within the clause, though it is not clear what the MA operation within the DP would be in Zeijlstra's framework since there are two unvalued features there and no interpretable ones that can function as a Probe. This would in actual fact be tantamount to reintroducing binary Agree.

[xix] Although we only deal with negation in this paper, our definition of Agree is intended to be a general definition. We hope to return to this in future work.

[xx] Pesetsky and Torrego (2007: 268) give the definition in (i).

(i)   Agree (Feature sharing version)

    (a)   An unvalued feature F (a *probe*) on a head H at syntactic location α (F_α) scans its c-command domain for another instance of F (a *goal*) at location β (F_β) with which to agree.

    (b)   Replace F_α with F_β, so that the same feature is present in both locations.

[xxi] We thank Norbert Hornstein (p.c.) for discussing the concept Agree with us.

[xxii] We depart from Pesetsky and Torrego (2007) and from Moscati (2006) in that in our paper, interpretable/valued and uninterpretable/unvalued are used interchangeably.

[xxiii] The system we are advocating bears some resemblance to a proposal put forward by Frampton and Gutmann (2006), who pursue the following approach to agreement: 'Agree induces feature sharing, with matching features coalescing into a single shared feature, which

is valued if either of the coalescing features is valued' (Frampton and Gutmann 2006: 128). However, although their approach and our approach seem to derive the same result, it is unclear what kind of operation 'coalescing' is. Therefore we will not use this terminology.

[xxiv] We have adjusted this representation in terms of our own paper. In particular we abandon the idea that *n-*

words are universal quantifiers.

[xxv] We are grateful to Michal Starke and Klaus Abels for very useful discussions regarding the feature content of these elements. Neither is responsible for the way we have used their comments.

For the relevance of [NEG] and [Q] to NC see also Manzini and Savoia (2008).

[xxvi] For reasons which are not clear WF does not use *iemand* and *iets* but rather *entwien* 'someone' and *eentwa* 'something', both of which composed of an indefinite article *een* and a *wh-*word. See Haegeman (1991) on these indefinite pronouns in WF.

[xxvii] For arguments that the NEG feature on the *n-*constituent is uninterpretable, see the discussion in section 3.

[xxviii] Thanks to an anonymous reviewer for suggesting this implementation.

[xxix] Some speakers, though not Liliane Haegeman, still use *niet* as an alternative to *niets.*
[xxx] In our proposal the [iQ] feature on *vele* is not instantiated on *niet,* with which an Agree relation is established This is not compatible with Pesetsky and Torrego (2007), according to whom the output of Agree is a single feature shared by two locations. As mentioned we do not adopt feature sharing here. Instead, we propose that the interpretable feature remains on the element where it is interpretable, as is standardly assumed.

Observe that the issue is different for cases where two uninterpretable features Agree (see Section 4.1). For such cases we propose that the feature survives on the topmost element.

This is required to ensure that the uninterpretable feature is not spelled out in a lower phase if the lowest *n*-word is in a separate phase than the topmost one.

As pointed out by a reviewer we therefore have to adopt two different algorithms for the two Agree relations. This is perhaps unfortunate. We intend to look into this in future work.

[xxxi] Bošković (2007) has argued that Agree should not be constrained by the PIC. However, Richards (2008) shows that when reanalyzed, the data Bošković discusses can in fact be analyzed in accordance with the PIC.

[xxxii] Consider also (i) in which the predicate *niet ziek* 'not sick' enters into NC with *niet* meer 'not more' but not with niet 'not':

(i)   da Valère niet ziek niet *(meer) is

        that Valère not sick no *(more) is

        'that Valère isn't sick any more'

This suggests that *niet ziek* be treated like the complex *n*-constituents composed with *niet,* but at first sight it cannot be straightforwardly analyzed in terms of our system. *Ziek* by itself does not seem to be quantificational. We therefore suggest that there is a silent quantificational element, DEGREE or QUANT (cf. Kayne's 2005 approach to silent elements, and Corver 1997a, 1997b on the internal syntax of adjectival phrases and the role of Degree and Quantification) between *niet* and *ziek*, and that this element bears [iQ]. As a result of Agree the [uQ] feature on *niet* will duly be checked and the effect of this is that only the uNEG feature is visible for further Agree operations. The silent DEGREE could be said to introduce the default standard by which 'sickness' is measured.

[xxxiii] Our analysis differs from Kranendonk (2006) who assumes that *geen* is a quantificational element. An alternative would consist of assuming that *geen*-NPs are associated with the

features [*u*NEG] and [*i*Q]. *Geen* spells out [*u*NEG]; [*i*Q] is located on the (possibly null) article, which we assume to be lower than DP (say NumP).

[xxxiv] As an anonymous reviewer points out, the structure in (37) is very reminiscent of a pattern that in terms of Starke (2001) and Rizzi (2004) creates no intervention effects. We cannot offer a comprehensive discussion of this issue and how to reconcile the Starke-Rizzi approach with how we are analyzing intervention. We intend to look into this in future work. See also Boeckx and Jeong (2004) on intervention.

[xxxv] An anonymous reviewer asks whether our proposal predicts that there will be a problem for φ-agreement between T and a *wh*-subject since the *wh*-subject has a [WH]-feature that T does not have. We assume that no problems will arise because φ-features and WH-features belong to different classes in the sense of Rizzi (2004).

[xxxvi] Thanks to an anonymous reviewer for raising this question.

[xxxvii] Zeijlstra (2004: 184-187) discusses the relation between sentential negation and universal quantifiers. We speculate that many of the issues he describes may be subject to an analysis in terms of the intervention effects we observe for West Flemish. For reasons of space we do not develop this point any further here.