Negative Concord and (Multiple) Agree:

A Case Study of West Flemish

Liliane Haegeman & Terje Lohndal

l.haegeman@skynet.be & terje@umd.edu

Lille III - STL - UMR 8163 CNRS & University of Maryland

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Abstract*

This paper examines the formalization of negative concord in terms of the Minimalist Program, focusing on negative concord in West Flemish. It is shown that a recent proposal to negative concord which advocates Multiple Agree as an across-the-board phenomenon is empirically inadequate. Instead of Multiple Agree, it is argued that the simpler and less powerful Agree mechanism is superior in deriving the data in question. The paper proposes a minor revision of the definition of Agree, building upon proposals about feature sharing in the literature.

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

1. Introduction

With the advent of the Agree model within generative grammar (Chomsky 2000, 2001, 2004, 2007, 2008), phenomena such as negative concord, which seems to display agreement between negative constituents, have given rise to renewed interest, both from a synchronic

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(Zeijlstra 2004, Lindstad 2007) and diachronic (Zeijlstra 2004, van Gelderen 2008, Roberts and Roussou 2003, Roberts 2007) point of view. Negative concord is illustrated in (1a) with an example from West Flemish.

(1) a. K'(en)-een *nooit niets* *nie* gezien.
I *en* have never nothing not seen
'I have never seen anything.'

As the translation indicates, (1a) is interpreted as if it contained a single expression of sentential negation, in spite of the fact that there are three negative expressions, *nooit* 'never' *niets* 'nothing' and *nie* 'not', each of which could also give rise to sentential negation all by themselves:[1]

(1) b. K'(en)-een *niets* gezien.
I *en* have nothing seen
'I haven't seen anything.'

c. K'(en)-een *nie* gewerkt.
I *en* have not worked.
'I haven't worked.'

d. K'(en)-een *nooit* gewerkt.
I *en* have never worked
'I have never worked.'

[1] (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 5; see also Haegeman (2003) and Breitbarth and Haegeman (2008).

The interest of (1a) for the concept Agree is that the three so called negative words, *nooit, niets, niet*, which each seem to express negation (1b-d), convey a single (sentential) negation. A similar effect obtains if there are only two negative words, as in (1e):

(1) e. K'(en) een *nooit nie* gewerkt.
I *en* have never not worked
'I have never worked.'

These data suggest that contrary to appearances, such *n*-words are not semantically negative, i.e. that they do not encode sentential negation. Rather they are 'negative dependents' (cf. Borsley and Jones 2005, Willis 2006) which are related to a negative feature elsewhere in the clause, which may, for instance, be associated with a negative head Neg°.[2] Or, to put it differently, negative concord is reinterpreted as a form of syntactic agreement between a number of constituents that depend on/are in the scope of one constituent that expresses semantic negation (Ladusaw 1992; Zeijlstra 2004). Following this hypothesis, it has been argued (Roberts and Roussou 2003: 145, Zeijlstra 2004) more specifically that negative concord involves only one interpretable negative feature (say the NEG feature on *en*) which values the (possibly multiple) uninterpretable negation features.[3] This is taken to be an illustration of Multiple Agree (Ura 1996, Hiraiwa 2001, 2005, Chomsky 2008).

However, although the Multiple Agree account is attractive, it also raises some questions. One is conceptual in nature: Multiple Agree, in which many probes agree with one goal, leads to the abandonment of a strict locality condition on agreement, in that precisely in

[2] At this point we remain 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.
[3] Different implementations are possible. See, for instance, Zeijlstra (2004) who assumes that *en* has an uninterpretable NEG feature and that the interpretable feature is realized on a null operator in the specifier of NegP. However, unless additional conditions are put on the expression of sentential negation, this analysis at first sight predicts that in West Flemish *en* could be the sole expression of negation since its uninterpretable feature would be checked by the covert operator in SpecNegP. As shown in 2.1, this is not possible. See also section 5.2.3.

the context of Multiple Agree a probe need not have a local relation with the goal. In addition, adopting Multiple Agree to account for negative concord in West Flemish leads to a number of empirical problems. These problems are the focus of our paper. We will show that these problematic data argue against the implementation of Multiple Agree to account for negative concord as presented in the literature (notably Zeijlstra 2004). To anticipate the discussion below, we will propose that a slightly different formulation of Agree (much in the spirit of Pesetsky and Torrego 2007) makes it possible to handle the West Flemish data.

The paper is structured as follows. In section 2 we provide some general remarks on the expression of sentential negation in West Flemish and we present an empirical overview of the core facts of negative concord in West Flemish. The discussion is not exhaustive; we simply provide the essential building blocks for the discussion. Section 3 discusses Zeijlstra's (2004) analysis of negative concord in terms of the Multiple Agree approach and we will discuss a number of empirical problems for its application to West Flemish. Section 4 introduces the feature system we will be adopting. In Section 5 we replace the Multiple Agree approach by a modified Agree analysis. Section 6 concludes the paper.

2. Sentential negation in West Flemish and the NEG criterion (Haegeman and Zanuttini 1991, 1996)

2.1. Expressions of negation: an inventory

Three types of elements are implicated in the expression of sentential negation in West Flemish. A first component is the morpheme *en*, which is cliticized onto the finite verb (see Haegeman 1998a,b, 2000bc, 2003 for complications). *En* co-occurs with a second negative constituent (2a-c) and it cannot express negation all by itself (2d). In this respect it is similar (though not identical) to French *ne*.

(2) a. Valère dienen boek *nie* (*en*)-eet
Valère that book not *en* has
'Valère doesn't have that book'

b. Valère (*en*)-eet dienen boek *nie*.
Valère *en* has that book not
'Valère doesn't have that book.'

c. da Valère dienen boek *nie* (*en*)-wilt kuopen
that Valère that book not *en* wants buy
'that Valère doesn't want to buy that book'

d. *da Valère dienen boek *en* eet
that Valère that book *en* has

Since *en* is cliticized to the finite verb and can be seen to move along with the verb (cf. in cases of V2 such as (2b)) we assume that it is a head. Let us assume that *en* spells out the head of a functional projection in a negative sentence. Following Haegeman (2003) and Breitbarth and Haegeman (2008), we may propose that *en* actually is associated not directly with a functional head which encodes negation but that it encodes emphatic polarity. We briefly return to its feature value and the conditions for the spell out of *en* below. Since it is only tangentially relevant to our general discussion, we will not discuss further properties related to the distribution of *en*, but see Haegeman and Zanuttini (1996), Haegeman (1998a,b, 2000b,c, 2003) and especially Breitbarth and Haegeman (2008) for discussion and examples.

A second negative element is the marker of sentential negation, *nie* 'not'. This marker is parallel to other Germanic negative markers, such as German *nicht*, Dutch *niet* and Norwegian *ikke*. It is an adverbial element which is located in the middle field, in a position

which c-commands *v*P. This means that it occurs to the right of the finite verb in main clauses, and to its left in embedded clauses (3). As can be seen, unlike *en*, *nie* is not affected by the movement of the finite verb.

(3) a. da Valère dienen boek nie eet
that Valère that book not has
'that Valère doesn't have that book'

b. Valère eet dienen boek nie.

While *en* arguably has X° status and cannot occur as an independent word, *nie* has XP status (see Haegeman 1995 and Zeijlstra 2004 for arguments). Zeijlstra (2004) proposes that *nie* has the feature specification [*u*NEG]. We return to his analysis in section 3.

Negative constituents, or *n*-words as they are usually called[4], are the third type of negative expression. An *n*-word is a constituent that appears in negative concord contexts. In West Flemish, *n*-words are constituents such as *niemand* 'nobody', *niets* 'nothing', *nooit* 'nowhere' and *nieverst* 'nowhere' (these will be jointly referred to as "bare negative constituents"), and constituents which are negative by virtue of the presence of the quantifier *geen* 'no', e.g. *geen mens* 'no person' and *geen geld* 'no money' (these will be jointly referred to as "*geen*-NPs") or by the presence of a negative marker *nie* as in *nie lange* 'not long', *nie vele* 'not much' etc. The use of the *n*-words is illustrated in (4)-(5). Once again, Zeijlstra assigns them the feature [*u*NEG]. In all of the examples in (4)-(5), which illustrate the use of *n*-

[4] 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

words, the finite verb could also be accompanied by *en* but we leave this out of the discussion at this point.

(4) a. da Valère *niemand* kent
that Valère nobody knows
'that Valère doesn't know anybody'

b. da Valère dienen boek *nieverst* vindt
that Valère that book nowhere finds
'that Valère doesn't find that book anywhere'

c. da Valère tegen *niemand* klaapt
that Valère against nobody talks
'that Valère doesn't talk to anyone'

(5) a. da Valère *geen geld* eet
that Valère no money has
'that Valère doesn't have any money'

b. da Valère *geen broers* eet
that Valère no brothers has
'Valère doesn't have any brothers'

c. da Valère tegen *geen mens* klaapt
that Valère against no person talks
'that Valère doesn't talk to anyone'

Our paper is concerned with the co-occurrence and interpretation of the negative marker *nie* and of *n*-words in West Flemish (see Vanacker 1975 for a description (in Dutch) of some of the crucial data). As mentioned, we will not have much to say about *en* which we will take to

be the spellout of an emphatic feature associated with the Polarity Phrase (Breitbarth and Haegeman 2008; see Willis 2005 for similar proposals on Welsh).

2.2. The NEG criterion

To account for the distribution and interpretation of *n*-words, Haegeman and Zanuttini (1996) elaborated the NEG criterion, a well formedness condition that required a specifier-head matching between operators and heads with operator features: (cf. the *wh*-criterion proposed by May 1985, Rizzi 1990b, 1996). Haegeman (1995: 106) proposes the following version:

(6) The NEG-*criterion*

a. A NEG-operator must be in a Spec-head configuration with an X° [NEG];

b. An X° [NEG] must be in a Spec-head configuration with a NEG-operator.

The following definitions were used:

(7) a. NEG-operator: a negative phrase in a scope position;

b. Scope position: left-peripheral A'-position [Spec, XP] or [YP, XP].

Among other things, the NEG criterion was then implemented to account for the distribution and interpretation of *n*-words in West Flemish.[5]

Being essentially based on feature matching, the NEG criterion is compatible with a minimalist approach but the nature of the NEG feature that is at stake has to be clarified. It was assumed by Haegeman (1995) and Haegeman and Zanuttini (1996) that negative operators were semantically negative, and that negative concord was the result of a factorization process by which negative features of several negative constituents somehow were factored out to

[5] For its application in English, see Haegeman (1995) and also Haegeman (2000a).

form a single negation. The nature of this operation has come under criticism (Zeijlstra 2004, Moscati 2006, Lindstad 2007) because the factorization account entails the deletion of interpretable negative features, an operation that is incompatible with strict minimalist tenets.[6] Along the lines of recent proposals by Zeijlstra (2004, 2008) and including insights drawn from Moscati (2006) we recast the NEG criterion in minimalist compatible terms. For a much more far-reaching proposal, see also Lindstad (2007).

2.3. Negative concord in West Flemish: the patterns

In this section we will provide a brief overview of properties related to negative concord in West Flemish (Haegeman 1992, 1995, 2002, Haegeman and Zanuttini 1991, 1996, Zeijlstra 2004).

2.3.1. Neg movement

On the basis of data such as those in (8), Haegeman (1995) argues that in West Flemish, in order to take sentential scope, an *n*-word must undergo leftward movement (cf. Koch Christensen 1986, 1987 for similar proposals for Norwegian). In (8) a non-negative complement of the adjective *ketent* may appear to the right (8a) or to the left (8b) of the adjective and it may be extraposed (8c), but when negated it must precede the adjective (8d-f)

(8) a. da Valère ketent van zen studenten was
That Valère contented of his students was
'That Valère was satisfied of his students.'

b da Valère van zen studenten ketent was

[6] Haegeman and Zanuttini's informal account could be replaced by De Swart and Sag's (2002) proposal in terms of polyadic quantification: negative concord is interpreted in terms polyadic quantification (that is one quantifier which occurs with two or more restrictors). However, such an account would also need some modification to cover the data we discuss in this paper.

That Valère of his students contented was

c da Valère ketent was van zen studenten

That Valère contented was of his students

d. *da Valère ketent *van niemand en*-was

that Valère contented of no one *en* was

'that Valère was not please with no one'

e da Valère *van niemand* ketent *en*-was

that Valère of no one pleased *en* was

'that Valère was not please with anyone'

f *da Valère ketent *en*-was *van niemand*

that Valère contented *en* was of no one

'that Valère was pleased with no one

The data in (9) show that the *n*-words move to the left of the marker of sentential negation, *nie*. Note that, if this movement does not take place, the derivation does not crash, rather the *n*-words take narrow scope, which, in the context of an expression of sentential negation, leads to a double negation reading.

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

that Valère of no one not pleased *en* was

'that Valère was not please with anyone' (NC)

b. da Valère *nie van niemand* ketent *en*-was

that Valère not of no one pleased *en* was

'that Valère was not pleased with no one (DN, *NC)

(i.e. he was pleased with someone)

c. da Valère *nie* ketent *van niemand* (*en*)-was

that Valère not contented of no one *en* was

'that Valère was not pleased with no one'

(i.e. he was pleased with someone) (DN, *NC)

d. da Valère nie ketent (*en*)-was *van niemand*

that Valère not contented *en* was of no one

'that Valère was not pleased with no one (DN, *NC)

2.3.2. Negative concord

As shown above, in West Flemish all *n*-constituents that contribute to the expression of sentential negation and thus have sentential scope have to move to the left of *nie.* Such moved constituents will then enter into a negative concord relation with each other and with *nie* (Haegeman 1995: 138-139). In (8)-(9) we use an example with a PP complement containing an N-word, (10) are additional examples:

(10) a. …da Valère niemand nie (en)-kent

that Valère nobody not *en* know

'… that Valère doesn't know anybody' (NC)

b. … da Valère nie niemand (en)-kent

that Valère not nobody *en* know

'... that Valère doesn't know nobody' (DN)

c. … da Valère an niemand niets nie gezeid (en) eet

that Valère to nobody nothing not said *en* has

'… that Valère didn't say anything to anyone' (NC)

d. … da Valère an niemand nie niets gezeid (en) eet

that Valère to nobody not nothing said *en* has

'… that Valère didn't say nothing to anyone' (DN)

Importantly, though, the obligatory leftward movement of an *n*-constituent(s) in (9) and (10) cannot be motivated by their precise need for entering into negative concord with *nie* as such, since it must also take place when *nie* is absent. One relevant example was provided in (8). (11a) shows negative concord with multiple negative elements where *nie* is present, and (11b) is an example where *nie* is absent, and (11c) is an ungrammatical example in which the negative constituent has failed to undergo NEG movement (cf. Haegeman 1995).

(11) a. da Valère an niemand niets *nie* gezeid (*en*)-oat

that Valère to nobody nothing not said *en* had

'that Valère had not said anything to anyone'

b. da Valère *an niemand niets* gezeid (*en*)-oat

that Valère to nobody nothing said *en* had

'that Valère had not said anything to anyone'

c. *da Valère nooit ketent *van niemand* (*en*)-was

that Valère never contended of no one *en* was

'that Valère was never satisfied with no one'

Observe that not only simple *n*-words such as *niemand* 'no one', *niets* 'nothing', *nieverst* 'nowhere' and *nooit* 'never' undergo NEG-movement and lead to negative concord. Other negated DPs with more complex structure can also enter into a negative concord relation with clause-mate negative constituents (Haegeman 2002). For instance, in (12a) the DP *geenen tyd* 'no time' has a negative concord relation with *nooit* 'never'. Once again the negated

constituent has to undergo leftward movement.[7] The examples in (12) illustrate a range of constructions. The list is not exhaustive. In (12a-e) *nie* 'not' negates a quantifier; in (12f-g) it negates an adverb (*lange* 'long', *dikkerst* 'often')

(12) a. K'(en)-een *nooit geenen* tyd.
I (*en*)-have never no time
'I never have any time.'

b. K'(en)-een *nooit nie vele* tyd.
I (*en*)-have never not much time
'I never have a lot of time.'

c. K'(en)-een *nooit nie te vele* tyd.
I (*en*)-have never not too much time
'I never have too much time.'

d. K'(en)-een *nooit nie genoeg* tyd.
I (*en*)-have never not enough time
'I never have enough time.'

e. K'(en) *een nie al die boeken nie m*eer gelezen
I (*en*) have not all those books no more read.

[7] For reasons that will become clear we cannot show this by means of the distribution of the relevant constituent with respect to *nie,* such negative constituents being incompatible with *nie.* However, as the contrast in (i) shows, a complex negative constituent that is the complement of an adjective must move to the left of that adjective. (See Haegeman 1997.)

(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

Observe in passing that quantificational complements of adjectives do not obligatorily move to the left:

(ii) a. da Valère ketent van veel studenten was
that Valère contented of many students was
'that Valère was pleased with many students.'
b. da Valère van veel studenten ketent was
that Valère of many students contented was

'I have not read all those books any more.'

f. t'(en) eet doa *niemand nie lange* gewerkt.
it (*en*) has there no one not long worked
'No one worked there for a long time.'

g. t'(en) eet em *nie dikkerst niemand* gholpen
it (*en*) has him not often no one helped
'Not often has anyone helped him.'

On the basis of data such as those in (12) Haegeman (2002) concluded that DPs containing negated quantifiers may function to all intents and purposes as clausal negators: "This means that the negative feature of the DP-contained negative marker *nie* must be able to percolate to the level of the containing constituent, to which it gives negative force." (2002: 157)

It is also possible for constituents containing a negative quantifier to have local scope. This is illustrated in (13): here *in geen tyd* 'in no time' does not negate the clause but means something like 'in very little time'. As a result it does not have sentential scope, *en* is not licensed, there is no need for NEG-movement (13b) and if another *n*-word is present it will not enter into negative concord with *in geenen tyd* (13c). In (13c) -*en* is licensed by the presence of *nooit* 'never' (see Haegeman 1997, 2000b, c, 2002 for more data and discussion). Similarly, in (14) *in nie vele tyd* 'in not much time' has local scope and does not license *en* (14a), it need not undergo NEG-movement (14b) and it will not enter into negative concord with an *n*-constituent. We will not have anything to say about negative constituents taking local scope. See Haegeman (2002a) for local scope in English, Svenonius (2002) for similar data in Norwegian and Moscati (2006) for a proposal.

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

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

'They had done that in no time.'

b. dan-se da (*en)-goan keunen doen *in geen tyd*.

that they that (**en*)-go can do in no time

'that they will be able to do that in no time.'

c. z'(en) oat da nie gedoan in geen tyd

she (*en*) had that not done in no time

'She did not do that in no time.'

(14) a. *In nie vele tyd (*en)*-oan-ze da al gedoan.

in not much time (**en*)-had they that all done

'They had done all that in a short period of time.'

b. dan-se da (*en)-goan keunen doen *in nie vele* tyd.

that they that (**en*)-go can do in not much time

'that they will be able to do that in a short period of time.'

2.3.3. DP-internal negative concord?

Consider now the following examples, which are variants of those given in (12b-d) above:

(15) a. K'(en)-een *nooit* [*nie vele* <u>*geen*</u> tyd.]

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

'I never have a lot of time.'

b. K'(en)-een *nooit* [*nie te vele* <u>*geen*</u> tyd.]

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

'I never have too much time.'

c. K'(en)-een *nooit* [*nie genoeg* <u>*geen*</u> tyd.]

I (*en*)-have never not enough no time

'I never have enough time.'

The negative constituents in these examples differ minimally from those in (12). The contrast is basically that in (15) *geen* 'no' is added to the constituent, but importantly, this does not lead to a change in meaning: (16) summarizes the comparison:

(16)	(12b)	nie vele tyd	(16a)	nie vele <u>geen</u> tyd
	(12c)	nie te vele tyd	(16b)	nie te vele <u>geen</u> tyd
	(12d)	nie genoeg tyd	(16c)	nie genoeg <u>geen</u> tyd

For arguments that the bracketed strings in (15) are constituents, see Haegeman (2002).

In all the sentences in (16) the negative quantifiers contained in the DPs can express negation independently and they can take sentential scope. So it seems as if *geen* is redundant and that we have a pattern of negative concord within the DP.[8] Based on this observation, Haegeman (2002) analyzes the *nie Q geen* N sequences as providing evidence for DP-internal negative concord.

[8] In the Lapscheure dialect negative concord in the DP is never possible with a non-quantificational descriptive adjective: (ia) with an attribute adjective *goed* 'good' does not allow doubling by *geen* (see Haegeman 2002). Contrary to what is suggested by Zeijlstra (2004: 111), the pattern we are concerned with cannot be described as *niet A geen N* but must be described as *niet Q geen N*.

(i) a. Z'oan doa goej eten.
they had there good food

b. *Z'en een doa nie 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

3. A minimalist update of the NEG criterion: negative concord as Multiple Agree (Zeijlstra 2004)

In this section we first provide an overview of Zeijlstra's (2004) (see also Zeijlstra 2008) reinterpretation of Haegeman and Zanuttini's NEG Criterion in terms of a minimalist feature system. Then we discuss some data that we consider problematic for his account.

3.1. Negative concord as Multiple Agree

In order to account for the co-occurrence of what seem, at first sight, multiple negative expressions that convey a single sentential negation, Zeijlstra (2004) proposes that such expressions are semantically non-negative indefinites which are associated with an [*u*NEG] feature (2004: 245).[9] The negative marker, *e.g*. West Flemish *nie*, too is associated with an [*u*NEG] feature. The very existence of the [*u*NEG] features triggers the projection of NegP. Sentential negation as such is introduced by a covert negative operator OP¬ in SpecNegP, associated with an [*i*NEG] feature. 'OP¬ (i) introduces a negation at LF, and (ii) unselectively binds all free variables under existential closure.' (2004: 247) Languages which display [*u* NEG] features and hence have NegP are said to display 'syntactic negation'. See Zeijlstra's own work for discussion and motivation of the distinction between such languages and languages with semantic negation.

In Zeijlstra's system Op¬ [iNEG] in SpecNegP c-commands the (multiple) [*u*NEG] N-constituents on the *v*P edge. [*i*NEG] is the probe and the [*u*NEG] constituents are the goals. Negative concord, the fact that multiple negative expressions convey a single negation, is the result of Multiple Agree (Hiraiwa 2001) between OP¬, on the one hand, and the negative marker and *n*-words on the other:

[9] We have adopted the feature notation system in Pesetsky and Torrego (2001). Notice that throughout the paper, interpretable/valued and uninterpretable/unvalued are used interchangeably.

> The central hypothesis behind the assumption that [negative concord] 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 [*u*NEG] feature, that at some point during the derivation needs to be checked against an overt or covert element that carries an interpretable [*i*NEG] feature. This feature checking is governed by the syntactic operation Agree. Thus [negative concord] is the realisation of an agreement relation between a negative operator and an n-word. (2004: 244-5, our italics)

3.2. Some applications

3.2.1. Czech

Consider the Czech example (17a): the verb *vidi* 'see' is associated with a negative morpheme *ne.* Since Czech is a negative concord language Zeijlstra assumes that it displays what he calls 'syntactic negation', i.e., it has a NegP whose specifier hosts a covert operator with an interpretable [*i*NEG] feature. The negative morpheme is associated with an uninterpretable [*u*NEG] feature, as is the head of NegP. Through Multiple Agree the uninterpretable features get checked and deleted (17b):

(17) a. Milan nevidi.
Milan NEG sees

b. $[_{NegP}$ OP¬ [iNEG] $[_{Neg°}$ [~~*u*NEG~~] $[_{vP}$ Milan nevidi [~~*u*NEG~~]]]](2004: 249, 250)

In (18a) both the verb *vidi* 'see' and the object *nikoho* 'nobody' are associated with an uninterpretable feature [*u*NEG]. As shown in (18b), the uninterpretable features undergo Multiple Agree with the interpretable feature of the negative operator in SpecNegP.

(18) a. Milan nevidi nikoho.

b. [$_{NegP}$ OP¬ [*i*NEG] [$_{vP}$ nikoho [~~*u*NEG~~] [$_{vP}$ Milan nevidi [~~*u*NEG~~]]]] (2004: 250)

3.2.2. West Flemish

With respect to negative concord in West Flemish, Zeijlstra (2004) writes:

> the preverbal negative marker *en* is no longer obligatorily present to express sentential negation, and the adverbial negative *nie(t)* is the main expression of sentential negation. .. West Flemish is a strict NC language …. In light of the previous discussion this implies that both negative markers in West Flemish carry [*u*NEG]. Hence the way NC readings are composed in West Flemish does not differ significantly from the composition of NC readings in other languages, except for the fact that a vP adjunct position may be overtly filled with an element carrying [*u*NEG] (2004: 255)

In (19) his analysis is applied to an example with a single negative marker *nie* 'not' and with the negative morpheme *en:* both carry an [*u*NEG] feature and the two uninterpretable features get checked via the interpretable feature on the negative operator in SpecNegP. Observe that *en* is optional here.

(19) a. da Valère nie en klaapt

that Valère not *en* talks

'that Valère doesn't talk'

b. [$_{NegP}$ OP ¬ [*i*NEG] [$_{vP}$ *nie* [~~*u*NEG~~] Valère [$_{v'}$ *en*-klaapt [~~*u*NEG~~]]]]

(Zeijlstra 2004: 255)

In (20a), sentential negation is conveyed by means of an *n*-word, *niemand* 'no one', which may be accompanied by the negative marker as well as by *en.* Zeijlstra (2004) provides the representation in (20b):

(20) a. da Valère tegen nieman[d] (nie) en klaapt

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

'that Valère doesn't talk to anyone'

b. [$_{NegP}$ OP ¬ [*i*NEG]

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

(Zeijlstra 2004: 255)

In (21) we provide a further example in which Multiple Agree will affect two (or three) *n*-words:

(21) da ter [$_{NegP}$ OP [iNEG] [$_{vP}$ nieverst [*u*NEG] niemand [*u*NEG] (nie [*u*NEG]) (en[*u*NEG]) is]]

that there nowhere no one not *en* is

3.3. Negative concord as Multiple Agree: questions for Zeijlstra's account

3.3.1. West Flemish en *and negative concord*

A first question that arises is that following Zeijlstra's assumption that *en* encodes [*u*NEG] it is not clear why (19c), the West Flemish counterpart of Czech (17a) is not grammatical:

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

Clearly *en* and *nie* must have a different status in the system. We return to this point in section 5.3.2.

3.3.2. Problems for negative concord as Multiple Agree

3.3.2.1. Multiple Agree as simultaneous feature checking

It is important to point out here that in Hiraiwa's original conception as well as in Zeijlstra's own implementation, Multiple Agree is a process whereby all uninterpretable features are 'simultaneously' eliminated. We cite Hiraiwa's formulation here for the reader's convenience:

> 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)

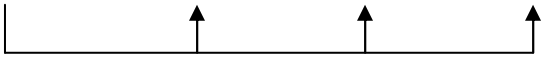
Since Zeijlstra (2004) assumes that *en* is also endowed with [*u*NEG], the feature on *en* will also participate in Multiple Agree.

Concretely, Zeijlstra's implementation of Multiple Agree for the phenomenon of negative concord can be summarized as follows. After the merger/move of the individual negative constituents to the edge of *v*P, each with its uninterpretable NEG feature, the abstract negative operator, OP¬, is merged in SpecNegP. This operator carries an interpretable NEG feature and will lead to an across the board type of agreement. Since Zeijlstra (2004) assumes

that *en* is also endowed with [*u*NEG], it will also participate in Multiple Agree. In (22), based on Hiraiwa's own formulation ("AGREE applies to all matched features") we assume that Multiple Agree, like binary Agree, is a two step process which first matches the features and then leads to checking.

(22) a. $[_{NegP}$ OP ¬[*i*NEG]] $[_{vP}$ [B *u*NEG]] $[_{vP}$ [C *u*NEG]] $[_{vP}$ D *u*NEG]]⇒ Match

b. $[_{NegP}$ OP ¬[*i*NEG]] $[_{vP}$ [B *u*NEG]] $[_{vP}$ [C *u*NEG]] $[_{vP}$ D *u*NEG]]⇒ Multiple Agree



c. $[_{NegP}$ OP ¬[*i*NEG]] $[_{vP}$ [B ~~*u*NEG~~]] $[_{vP}$ [C ~~*u*NEG~~]] $[_{vP}$ D ~~*u*NEG~~]]

On Zeijlstra's (2004) approach [*i*NEG] is the probe, and the multiple negative constituents with their [*u*NEG] features are the goals. Multiple Agree relates [*i*NEG] "across the board" to each of the individual [*u*NEG] features and there is no relation between the constituents with [*u*NEG] features as such. Note that strictly speaking Multiple Agree implies that Agree can be non-local, since in (22c), for instance, B and C intervene between OP and D. Thus, for instance, it will be assumed that the single interpretable feature of the negative operator in (23) establishes an Agree relation with the [*u*NEG] feature on both *niemand* 'no one' and *nie* 'not'. (23b) provides a representation for the application of Multiple Agree. Observe that the relationship is 'one to many', i.e. the [*i*NEG] feature licenses two [*u*NEG] features. Crucially, there is no relation established which is restricted to the latter two.

(23) a. dat er niemand nie gewerkt eet *niemand nie*: NC

that there no one not worked has

b. dat er $[_{NegP}$ OP ¬ [*i*NEG] niemand [*u*NEG] nie [*u*NEG]] gewerkt eet]

(24) is an example in which there is Multiple Agree between the [*i*NEG] feature and two *n*-items: *niemand* 'no one' and *nie vele* 'not much'. Once again the relation is one to many, and there is not provision that *niemand* and *nie vele* have any direct relation between each other.

(24) a. dat er niemand nie vele gewerkt eet *niemand nie vele:* NC
that there no one not much worked has

b. dat er [$_{NegP}$ OP ¬ [*i*NEG] niemand [*u*NEG] nie vele [*u*NEG] gewerkt eet]

In (25) we adopt Zeijlstra's approach to analyze an example in which three *n*-words (*nooit* 'never', *niemand* 'no one', and *nie vele* 'not much', enter into a negative concord relation:

(25) a. dat er nooit niemand nie vele gewerkt eet *nooit niemand nie vele:* NC
that there no one not much worked has

b. dat er [$_{NegP}$ OP ¬ [*i*NEG]
nooit [*u*NEG] niemand [*u*NEG] nie vele [*u*NEG] gewerkt eet]

Below we will see that the West Flemish data show that Agree cannot be non-local by way of Multiple Agree, but that it has to be strictly local.

3.3.2.2 DP internal negative concord

As discussed above, West Flemish seems to display DP-internal negative concord. This is illustrated in (17) above and also in (26):

(26) a. nie vele geen boeken
not many no books
'not many books'

Intuitively we want to say that *nie vele* and *geen* enter into an agreement relation, since *geen* seems to be present by virtue of the negative property of *nie vele* (see Haegeman 2002 for details). Since *nie* seems to be at the base of the "negative semantics" (the quantifier *vele* is negated) and since *geen* does not seem to contribute the negative feature to the interpretation we might propose that *geen* carries an uninterpretable NEG feature and that *nie* in *nie vele* carries the interpretable feature. One might then propose that such cases are analyzed as a DP internal feature valuation as in (26b):

(26) b. nie vele [*i*NEG] geen [*u*NEG] Agree
c. nie vele [*i*NEG] geen [~~*u*NEG~~]

However, observe that now we end up with a constituent that carries an interpretable [*i*NEG] feature. Thus, following Zeijlstra's account, the constituent should contribute its own negative value to the clause. This has two consequences: (i) the constituent should not be subject to NEG movement, since it does no longer contain an unvalued NEG feature, and (ii) the constituent would not enter into a negative concord relation with the other negative elements in the clause. Being interpretable, the constituent should give rise to a double negation reading if it is c-commanded by a negative operator with the [*i*NEG] feature. Both predictions follow from the standard assumption that when valuation has happened, the item is not able to enter into further agreement (Chomsky 2000 et seq.). That is, it is impossible for the item to

undergo further movement (for extensive arguments that this is true, see Bošković 2007 and Boeckx 2007, 2008). These predictions are incorrect.

First, just like any other *n*-constituent, the constituent in (26a) must undergo leftward movement:

(26) d. *dan ze ketent van nie vele geen boeken zyn
that they contented of not many no books are

e. dan ze va nie vele geen boeken ketent zyn
that they of not many no books contented are

Second, just like *niemand*, *nie* etc, for which we assume that they have an uninterpretable NEG feature [*u*NEG], *nie vele geen boeken* 'not many books' may enter into a negative concord relation with other negative constituents: in (27a) *nie vele geen boeken* enters into a negative concord relation with *nooit* 'never', in (27b) it has a negative concord relation with *nooit* and with *niemand* 'no one':

(27) a. k'en een nooit nie vele geen boeken me
I (*en*) have never not many no books with (me)
'I never bring many books.'

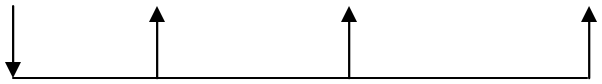
b. ier en leest er nooit niemand nie vele geen boeken.
here (*en*) reads there never no one not many no books
'No one ever reads many books around here.'

So if *nie vele geen boeken* must undergo NEG movement, and given that it is able to enter into a negative concord relation the analysis sketched in (26b, c) above cannot be correct. That is, there cannot be a probe internal to the DP.

An alternative would be to assume then that the negative features of both *nie vele* and *geen* are both uninterpretable, basically along the lines of Zeijlstra's proposals. Under Multiple Agree, then, they would enter into an agree relation with the interpretable negative feature of Neg°:

(28) a. $[_{NegP}$ OP [*i*NEG] $[_{Neg}$ [*u*NEG] $[_{vP}$ nie [*u*NEG] vele geen [*u*NEG]… Agree

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



Intuitively, though, this proposal is less than satisfactory since it fails to capture the dependency between *nie vele* and *geen*. (28) presents both *geen* and *nie vele* as directly related to the *i*NEG feature of the negative operator, while it would be desirable to capture the fact that they actually have some DP-internal interdependency. Observe, for instance that (29a) does not have a variant in (29b) in which *geen* is dependent on the sentential negation, with Multiple Agree applying as in (29c, d):

(29) a. t'eet ier niemand vele boeken

it has here no one many books

b. *t'eet ier niemand vele geen boeken

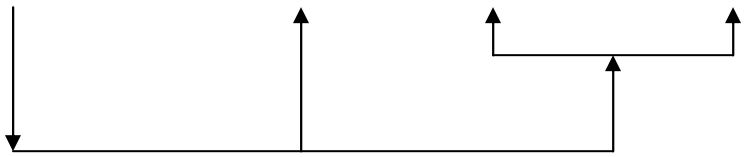
it has here no one many no books

c. $[_{NegP}$ OP [*i*NEG] $[_{Neg}$ niemand [*u*NEG] $[_{vP}$ nie [*u*NEG] vele geen [*u*NEG]Agree

d. *$[_{NegP}$ OP [*i*NEG] $[_{Neg}$ niemand [~~*u*NEG~~] $[_{vP}$ vele geen [~~*u*NEG~~]…

DP-internal *geen* in (26) seems to depend on the presence of the DP-internal negative marking in *nie.* Instead of (29d) one would prefer something like (29e). That is to say: it would be intuitively more satisfying if we could express that there is a relation between *nie (vele)* and *geen* and then relate the two constituents to the feature set in the NegP.

(29) e. [$_{NegP}$ OP [*i*NEG] [$_{Neg}$ niemand [~~*u*NEG~~] [$_{vP}$ nie [*u*NEG]] vele geen [~~*u*NEG~~]



The same observation applies to cases of negative concord which include a DP with apparent internal negative concord and some other constituents. Consider an example such as (30).

(30) a. dat ter niemand [nie vele geen boeken] eet
that there no one not many no books has
'that no one has many books'

A Multiple Agree reading would lead to the representation in (30b).

(30) b. ... [$_{NegP}$ OP [*i*NEG] [*u*NEG] niemand [*u*NEG] [nie vele[*u*NEG] geen[*u*NEG] werk

Once again, in Zeijlstra's system *nie vele* and *geen* would have to be presented as parallel dependents of the operator in NegP and their *u*NEG features do not seem to entertain any prior

matching relation. But as shown in (27), the availability of *geen* does depend on that of *nie vele*.

More appealing would be a representation in which we can characterize the relation between the interpretable NEG features on both *geen* and *nie vele* first, prior to the agreement relation the negative feature on *niemand.*

What is required is a Multiple Agree operation that operates stepwise: first affecting the DP-internal constituents and then extending to the clausal level. But, as pointed out above, we cannot simply consider the match between *nie vele* and *geen* as an instantiation of negative concord with one interpretable feature matching and agreeing with an uninterpretable one as this should ultimately lead to a double negation reading for the example.

Nor can we propose that the matching of the two [uNEG] features inside the DP is an instantiation of AGREE and leads to deletion of the features as such, assuming that this were possible. If this were the case then the DP would no longer have any [uNEG] feature to check and once again we predict that it would not have to undergo NEG movement and that it would not be subject to negative concord.

So we need to find a way of relating/matching the DP-internal features first independently of their relating to the negative features at the clausal level. And the data of DP-internal negative concord suggest the availability of a process in which uninterpretable features can agree.

3.3.2.3. Additional constraints on negative concord (Haegeman and Zanuttini 1996)

We have seen that there are locality conditions on negative concord in West Flemish in that all n- constituents entering into negative concord must move leftward. Haegeman and

Zanuttini (1996) have observed that in West Flemish negative concord sentences the nature of the negative element also plays a role in generating negative concord.[10]

The examples in (31) illustrate the application of negative concord in West Flemish: in (31a) *niemand* 'no one' enters into a negative concord relation with *nie* 'not', in (31b) *niemand* enters into a negative concord relation with *nie vele studenten* 'not many students' and in (31c) *nooit* 'never' enters into a negative concord relation with *nie vele studenten*. Examples such as these can be multiplied.

(31) a. dank ik niemand nie gezien een
that I no one not seen have
'that I didn't see anyone'

b. dat ter niemand nie vele studenten gezien eet
that there no one not many students seen has
'that no one saw many students'

c. dat ter nooit nie vele studenten geweest een
that there never not many students been have
'that there were never many students'

However, though *niemand* can enter into negative concord with the negative marker *nie* (31a) and can also enter into a negative concord relation with *nie vele studenten* (31b), *nie vele studenten* cannot enter into a negative concord relation with the negative marker *nie.* (31d) becomes grammatical if the 'simple' negative marker *nie* is replaced by the more complex *nie meer* 'no more':

[10] 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 /postverbal asymmetry which is not at issue here.

(31) d. *dat ter niemand nie vele studenten nie gezien eet
that there no one not many students not seen has

e. dat ter niemand nie vele studenten nie meer gezien eet
that there no one not many students no more seen has
'that no one any longer saw many students'

Further illustrations of such patterns are given in (32)-(35):

(32) a. dat er niemand nie gewerkt (en)eet niemand nie: NC
that there no one not worked (*en*)has
'that no one was working

b. dat er niemand nie vele gewerkt (en) eet niemand nie vele: NC
that there no one not much worked (*en*) has
'that no one has worked a lot'

c. *dat er niemand nie vele nie gewerkt (en) eet niemand nie vele nie: *NC
that there no one not much not worked (*en*) has

d. dat er niemand nie vele nie mee gewerkt (en) eet
that there no one not much no more worked (*en*) has
'that no one any longer was working a lot'
niemand nie vele nie meer: NC

(33) a. dat er doa nooit nie gewerkt (en) is nooit nie: NC
that there there never not worked (*en*) is
'that they never worked at that place'

b. dat er doa nooit nie vele gewerkt (en) is nooit nie vele: NC
that there there never not much worked (*en*) is

'that they never worked much at that place'

c. *dat ter doa nooit nie vele nie gewerkt (en)is

that there there never not much not worked (*en*)is

nooit nie vele nie: *NC

d. dat ter doa nooit nie vele nie meer gewerkt (en)is

that there there never not much no *(more) worked (*en*)is

that they never worked much at that place any more'

nooit nie vele nie meer: NC

(34) a. *da Valère nie dikkerst tegen Jan nie geklaapt eet

that Valère not often against Jan not talked has

'that Valère did not often talk to Jan'

b. da Valère nie dikkerst tegen Jan nie meer geklaapt eet

that Valère not often against Jan not more talked has

'that Valère hasn't often talked with Jan any more.'

nie dikkerst nie: *NC, nie dikkerst nie meer: NC

(35) a. dat-er doa nie dikkerst niemand nie geweest eet

that there there not often no one not been has

'that there wasn't often anyone there'

nie dikkerst niemand nie:NC

b. dat der doa nie dikkerst niemand nie meer geweest eet

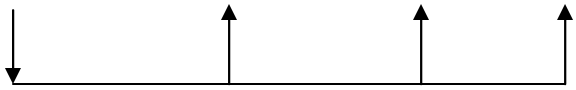
that- there there not often no one no more been has

'that there hasn't often been anyone there any more'

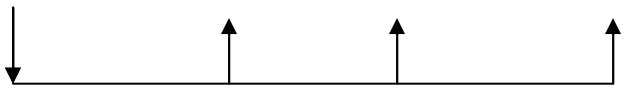
nie dikkerst niemand nie meer:NC

So negative concord is sensitive to the type of n- constituent involved and to their relative positions. Because all relevant constituents (*niemand, nie vele, nie dikkerst niet, nie, nie meer, etc*) apparently can undergo negative concord in some types of combinations, a Multiple Agree analysis would lead us to expect that they will *all* enter into an Agree relation with the relevant negative feature on Neg° and it is by no means clear how the application of Multiple Agree as formulated as a one time across the board procedure can "distinguish" acceptable combinations from unacceptable ones.[11] (36)-(39) show some such patterns, adopting Zeijlstra's feature system.

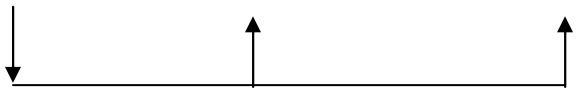
(36) *dat er [$_{NegP}$ [*i*NEG] niemand [*u*NEG] nie vele [*u*NEG]] nie [*u*NEG] gewerkt eet



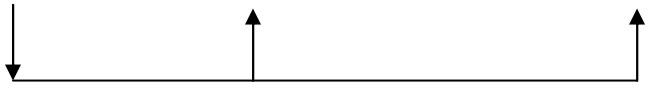
(37) dat er [$_{NegP}$ [*i*NEG] niemand [*u*NEG] nie vele [*u*NEG] nie meer [*u*NEG] gewerkt eet



(38) *da Jan [$_{NegP}$ [*i*NEG] nie dikkerst [*u*NEG] tegen Valère nie [*u*NEG] geklaapt eet



(39) da Jan [$_{NegP}$ [*i*NEG] nie dikkerst [*u*NEG] tegen Valère nie mee [*u*NEG] geklaapt eet



Haegeman and Zanuttini (1996) describe the co-occurrence restrictions on negative concord in some detail and provide the following table on co-occurrence restrictions on adjacent

[11] Observe that De Swart and Sag's (2002) resumption approach generalizes binary resumption to across the board resumption over all N-indefinites. Presumably the resumption strategy could be recast into a recursive binary resumption.

negation constituents that enter into a negative concord relation (40). They distinguish 'bare' quantifiers such as *niemand* and *niets* from the more complex quantificational constructions such as *nie meer, nie vele* etc. (Haegeman and Zanuttini 1996: 143).

(40) *Co-occurrence restrictions on adjacent negative constituents*

	Bare Q	*Geen*-NP	*Nie*
Bare Q e.g.	yes *niemand niets*	yes *niemand geen geld*	yes *niemand nie*
Geen-NP e.g.	yes *geen mens niemand*	yes *geen mens geen tyd*	no **geen mens nie*
Nie meer e.g.	yes *niemand nie meer*	yes *geen mens nie meer*	no **nie meer nie*

Haegeman and Zanuttini (1996) also sketch a way of analyzing the negative constituents in West Flemish in terms of their feature composition. We will not repeat their discussion, but simply add another table (41) where the features that they propose are included (from Haegeman and Zanuttini 1996: 145). Note that [Q] is a quantificational feature.

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

	Bare Q [NEG, Q][12]	*Geen*-NP [Q]	*Nie* [NEG]
Bare Q [NEG, Q]	yes *niemand niets*	yes *niemand geen geld*	yes *niemand nie*
Geen-NP	yes	yes	no

[12] We adopt the feature Q from Haegeman and Zanuttini (1996).

[Q]	*geen mens niemand*	*geen mens geen tyd*	**geen mens nie*
Nie meer [Q]	yes *niemand nie meer*	yes *geen mens nie meer*	no **nie meer nie*

It is not clear what the match is precisely: *niemand* 'no one' and *nooit* 'never' seem to be ambivalent in that they match both pure *nie*, and composite constituents with *nie* + X or with *geen*. But in (36), where *niemand* is separated from *nie* by *nie vele,* it is *nie vele* that "controls" the matching with *nie*. What we seem to have is that matching is done stepwise and in local pairs: in (33a), for instance, *nie* and *nooit* can match and in (33b) *nooit* and *nie* can match, but in (32c) *nie* cannot match with *niemand* because *nie vele* intervenes. Haegeman and Zanuttini (1996) propose that the factorization which underlies negative concord operates in a stepwise binary fashion: so rather than (42) with an across the board factorization they propose a pairwise factorization as in (43):[13]

(42) [x¬][y¬]([z¬]) = [x, y(, z)]¬

(43) [x¬][y¬]([z¬]) ⇒ [x¬][y, z]¬) ⇒[x,y, z]¬

At this stage the question remains which features are exactly involved in determining negative concord, but what seems to be required is that there is a binary feature match. It is not clear that the multiple agree account can handle these co-occurrence restrictions, which are not discussed in Zeijlstra's work (2004).

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

3.3.2.4. En *vs* Nie *and negative concord*

Recall that Zeijlstra assumes that the interpretable NEG feature is associated with a null operator in SpecNegP and that all overt 'negative' items in West Flemish are associated with an uninterpretable feature.

(44) Zeijlstra: OP¬ [iNEG]

En
Nie
Niemand [*u*NEG]
Nie vele
Nooit

Thus *en* is treated on a par with *nie* as well as with the other *n*-words. We have shown above that there are co-occurrence constraints between the negative marker *nie* and other constituents that enter into a negative concord relation. Now observe that there are no such constraints as far as *en* is concerned: *en* can enter into a negative concord relation with all negative constituents, regardless of their internal feature composition. This suggests that we should not treat *en* and *nie* as equal, and that the two do not enter into negative concord in the same way.

3.4. Summary

We have shown how Haegeman and Zanuttini's (1991, 1996) NEG criterion can be reformulated in Minimalist terms, as done by Zeijlstra (2004). The reinterpretation has two ingredients:

(i) constituents which are morphologically marked for negation are associated with an uninterpretable NEG feature [*u*NEG], the interpretable feature is associated with a non overt operator in SpecNegP;

(ii) all constituents carrying [*u*NEG] enter into an Across the board checking relation with the [*i*NEG] by virtue of Multiple Agree.

We have shown that this proposal raises a number of empirical shortcomings when applied to West Flemish, which we summarize briefly:

(i) it fails to provide a separate application for negative concord/Multiple Agree in cases of DP internal negative concord;

(ii) it fails to predict the binary matching restrictions on negative concord;

(iii) it fails to predict the different patterning of *nie* and *en.*

In what follows we present an alternative approach to negative concord in which we return to an account in terms of binary Agree.

4. Interpretable and uninterpretable features

As discussed above, Zeijlstra (2004) adopts a binary feature system in which negative features are either interpretable [iNEG] or uninterpretable [*u*NEG]. For him, in West Flemish the negative head *en*, the negative marker *nie,* as well as all *n*-words are assigned an uninterpretable NEG feature (see also Moscati 2006). Zeijlstra assumes that these [*u*NEG] features are checked by an [iNEG] feature associated with a c-commanding abstract negative

operator (OP¬) in SpecNegP. Zeijlstra's account basically adopts a Valuation/Interpretability biconditional as proposed in Chomsky (2001: 5) and given in (45).

(45) a. A feature F is uninterpretable iff F is unvalued.

(45a) leads to the binary feature typology in (45b):

(45) b. *Types of features*

*i*INT	interpretable feature/valued feature
*u*INT	uninterpretable feature/unvalued feature

In our recasting of the NEG criterion in a feature based approach, we will more or less adopt Zeijlstra's proposal. We assume that the negative marker *nie* and all *n*-words are specified for the feature [*u*NEG], that is, an uninterpretable NEG feature. Let us also assume that an abstract operator in NegP hosts an [*i*NEG] feature, which acts as a probe in the Agree framework we are assuming (Chomsky 2000 et seq.).

The nature of *n*-words has been extensively discussed in the literature, and we will not attempt to review it here (see, among others Progovac 1988, 1994, Laka 1990, Zanuttini 1991, 1997, Zanuttini and Haegeman 1991, 1996, Ladusaw 1992, Acquaviva 1993, 1997, Haegeman 1995, Giannakidou 1997, Giannakidou and Quer 1995, 1997, Piñar 1996, Déprez 1997, 2000, Herburger 2001, de Swart and Sag 2002, Watanabe 2004, Lindstad 2007, and Giannakidou 2006 for a summary and discussion). Concerning their feature make up, we will be assuming that, like *nie*, all *n*-words are unvalued and uninterpretable (*u*INT); their specification is [*u*NEG]. In other words, we will mainly follow the suggestion by Zeijlstra (2004, 2008) in terms of feature decompositions of negative items.

5. Multiple Agree should be replaced with Agree

5.1. The proposal

In section 3 we have shown that there are a number of empirical problems in the derivation of West Flemish negative concord by means of Multiple Agree as implemented by Zeijlstra (2004). We will therefore reconsider the implementation of Multiple Agree and we propose a derivational analysis by which there is no need for Multiple Agree. Instead we will argue that Agree needs a minor revision. Some common definitions of Agree are provided in (46).

(46) *Definitions of Agree*

a. A relation Agree holding between α and β, where α has interpretable inflectional features and β has uninterpretable ones, which delete under Agree (Chomsky 2001: 3).

b. An uninterpretable feature F on a syntactic object Y is checked when Y is in a c-command relation with another syntactic object Z which bears a matching feature F (Adger 2003: 168).

c. If α is valued for some feature [F] and β is unvalued for [F] and if β agrees with α, the feature-value for [F] on α is copied onto β (Radford 2004: 285).

Of these definitions, (46b) is the most comprehensive in that incorporates the fact that a c-command relationship is necessary in order for Agree to happen. In addition, we will also integrate in our account some concepts from Pesetsky and Torrego's (2007) definition. They define Agree as in (47) (Pesetsky and Torrego 2007: 268).

(47) Agree (Feature sharing version)

(i) 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.

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

Importantly, Pesetsky and Torrego allow for agreement between two uninterpretable/unvalued items (a Probe and a Goal) (see also López 2008 for a different implementation of the same idea), and say that:

> 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).

Observe that it is not clear why there needs to be a Probe-Goal relationship between the two occurrences, or put differently, how one can distinguish between a Probe and a Goal. This is acknowledged by Pesetsky and Torrego, who point out 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' (Pesetsky and Torrego 2007: 269, fn. 9).

We will maintain the essential aspects of Pesetsky and Torrego's proposal, but we propose the definition in (48).[14]

[14] We thank Norbert Hornstein (p.c.) for suggesting a revision of Agree. Obviously we remain responsible for the elaboration in this paper.

(48) *Agree*

Given that α c-commands β and that the feature sets on α and β are identical, α agrees with β if β has either an interpretable or an uninterpretable feature.

The crucial difference between our definition of Agree and the other definitions in the literature is the precondition on matching: 'that the feature sets on α and β are identical'. What we mean by this is that the features have to satisfy a sort of maximal identity condition (see Chomsky 2001, Lahne 2008, Landau 2008 and Haegeman in press for other contexts which seem to require a maximization of Agree). Suppose α c-commands β and α and β share one feature, but that β has an additional uninterpretable feature. In this case Agree will fail to take place. Moreover if α c-commands β α will be a defective intervener and prevent β from agreeing with a c-commanding constituent. Below we will illustrate why the maximization requirement is necessary in the context of West Flemish negative concord.

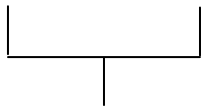
(48) makes it possible for α to be either valued or unvalued, (cf. Adger 2003, Bošković 2007 and Baker 2008).[15] Two uninterpretable/unvalued features are able to agree, as in Pesetsky and Torrego (2007), since they are still 'active' in terms of agreeing with an interpretable feature. A feature combination that is allowed in principle by (48) but which must be ruled out on independent grounds is agreement 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.

[15] 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.

(49) [α [β [γ]]]

*i*F *u*F *u*F



Agree

*i*F *u*F Agree

In (49), the uninterpretable features β and γ c-command each other and according to (48) they are able to Agree. Whereas they initially each have an [*u*F] feature, after Agree there is only one [*u*F]. This [*u*F] is then able to Agree with [*i*F], given that α c-commands this feature. On this approach, Agree operates 'step-wise' and locally.

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). Our proposal shares with Frampton and Gutmann's the idea that matching/identical features coalesce into one feature, but it differs in that valuation is not related to the coalescing itself.

Returning to negative concord, an abstract representation of an instance of negative concord and its derivation is given in (50). In order to simplify the presentation, we have used strike-through to indicate that only one of the uninterpretable features remains after Agree.

(50) a. [C [*u*NEG]] [D [*u*NEG]] ⇒ Agree

b. [C [*u*NEG]] [D [~~*u*NEG~~]] Merge [B [*u*NEG]]

c. [B [*u*NEG]] [C [*u*NEG]] [D [~~*u*NEG~~]] ⇒ Agree

d. [B [*u*NEG]] [C [~~*u*NEG~~]] [D ~~*u*NEG~~]] Merge [A [*i*NEG]]

e. [A [*i*NEG]] [B [*u*NEG]] [C [~~*u*NEG~~]] [D [~~*u*NEG~~]] ⇒ Agree

f. [A [*i*NEG]] [B [~~*u*NEG~~]] [C [~~*u*NEG~~]] [D [~~*u*NEG~~]]

As a final result of this stepwise Agree process, we end up with just one interpretable/valued negative feature, which is what we want in cases where we have negative concord.

As mentioned, our definition of Agree crucially relies on feature sets of agreeing elements being identical. Such feature sets may include interpretable features. As we will see in the discussion below we have to postulate that the presence of an interpretable formal feature on β and γ might determine whether Agree with respect to one of their uninterpretable features can take place. Note that the relevant interpretable formal feature may itself not participate in Agree according to (48), but it will determine whether matching is possible or not. Below we will see that this is crucial for our analysis of the co-occurrence restrictions in West Flemish negative concord.

(51) shows the feature content which we assume for West Flemish negative constituents.[16] and implements our definition of Agree to derive the co-occurrence restrictions on *n*-words in West Flemish .

(51) a. *nie* + *niemand*

[*u*NEG, *u*Q] + [*u*NEG, *i*Q]

b. *niemand* + *geen-NP*

[*u*NEG, *i*Q] + [*u*NEG]

c. *niemand* + *nie meer*

[*u*NEG, *i*Q] + [*u*NEG]

d. * *nie vele* + *nie*

+ [*u*NEG] +[*u*NEG, *u*Q]

[16] We are grateful to Klaus Abels (p.c.) for very useful discussions regarding the feature content of these elements.

e. * *geen-NP* + *nie*

+ [*u*NEG] +[*u*NEG, *u*Q]

f. * *nie mee* + *nie*

+ [*u*NEG] +[*u*NEG, *u*Q]

The ungrammatical cases are cases in which the lower constituent *nie* bears two uninterpretable features, and in which the c-commanding constituents can only value one of the two. In those cases, Agree is impossible.

Let us say something more about the feature content of the negative constituents in (51). At first sight it is perhaps strange to find that the feature sets on *nie* and those on *nie vele* in (51D) are different; ultimately, we would want *nie* in bare *nie* and in *n*-words like *nie vele* 'not many' to be the same element. We argue that the same *nie* is present in both these constituents and that *nie* bears the feature content [*u*NEG, *u*Q]. Assuming that an element like *vele* has an *i*Q feature, we can assume that internally to the nominal constituent, the *u*Q feature on *nie* can be checked off already:

(52) a. nie vele ⇒ Agree

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

b. nie vele

*u*NEG *i*Q

We assume that at the clausal stage the feature iQ is too deeply embedded in order to take part in further Agree operations. That is, at the next derivational step, only the feature *u*NEG is visible.[17]

For *niemand*, a similar story can be invoked. Let us tentatively assume that *niemand* is derived as follows:[18]

(53) a. mand nie ⇒ Agree

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

b. mand nie ⇒ Move *nie*

*i*Q *u*NEG

c. niemand

*u*NEG, *i*Q

We see that through these derivations, we get the feature combinations used in (51). Importantly, after the derivational steps in (52) and (53), the elements are still visible for further operations as they have more uninterpretable features to be valued. Notice also that if we assume that *nie* has the feature combination [*u*NEG, *u*Q], it follows that the abstract negative operator needs to have the feature combination [*i*NEG, *u*Q]. We can assume that negation is quantificational in that it quantifies over events.

We also need to bear in mind that West Flemish does allow double negation readings. These occur when the two constituents with the relevant feature specifications are not locally related. For instance, if an interpretable NEG feature ends up on an extraposed constituent, it may be argued to be outside the relevant domain for Agree. Above we have also seen that

[17] The element *nie ziek* is not 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 between *nie* and *ziek*, and that this element bears *i*Q. The effect of this is that only the *u*NEG feature is visible for further Agree operations.
[18] We intend to return to the issue of the internal syntax of n-constituents in future work. For very insightful discussion see Déprez (2000).

double negation readings occur if scrambling to the middle field does not occur. The data are repeated in (54) for convenience.

(54) a. …da Valère niemand nie (en)-kent
that Valère nobody not en know
'… that Valère doesn't know anybody' (NC)

b. … da Valère nie niemand (en)-kent
that Valère not nobody en know
'... that Valère doesn't know nobody' (DN)

c. … da Valère an niemand niets nie gezeid eet
that Valère to nobody nothing not said has
'… that Valère didn't say anything to anyone' (NC)

d. … da Valère an niemand nie niets gezeid eet
that Valère to nobody not nothing said has
'… that Valère didn't say nothing to anyone' (DN)

When *n*-words do not Agree with a Probe, they contribute independently with their uninterpretable feature.[19] This means that double negation emerges. We do not discuss the derivation of negative doubling.

[19] In cases where the *n*-word is outside the relevant local domain and there is no NegP containing a [*i*NEG], we assume that an independent [*i*NEG] feature can check the unvalued feature.

5.2. The implementation

5.2.1. DP internal negative concord

We encountered two problems for an across the board Multiple Agree analysis of West Flemish negative concord. One concerned the patterns that looked like DP-internal negative concord.

(55) a. nie vele geen boeken
not many no books
'not many books'

This pattern follows from our account. We assume that both *geen* and *nie vele* have the feature [*u*NEG]. The conditions for Agree are met, resulting in a single [uNEG] feature. The feature NEG remains instantiated on *nie.* So what looks like DP-internal negative concord is in fact DP internal Agree.

(55) b. nie vele [*u*NEG,] geen [*u*NEG] ⇒ Agree

c. nie vele [*u*NEG,] geen [~~*u*NEG~~]

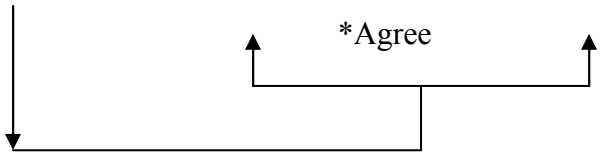
The resulting DP carries one uninterpretable [*u*NEG] feature, which can enter into another Agree relation at the clausal level

5.2.2. Negative concord in the clause

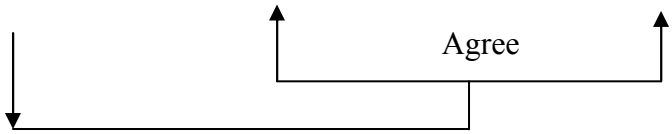
It will be clear that the definition of Agree we proposed above is also well equipped to deal with the constraints on negative concord relations. Agree is not wholesale across-the-board

but it applies stepwise and pairs 'adjacent' sets of identical features. Agree can only take place when the features specifications match maximally. This condition is not met in (56) but it is met in (57). In (56) the [*u*NEG] feature on *nie dikkerst* will create a defective intervention effect so that *nie* cannot agree directly with the interpretable features of the negative operator:

(56) *da Jan [$_{NegP}$ [*i*NEG, *i*Q] nie dikkerst [*u*NEG] tegen Valère nie [*u*NEG, *u*Q] geklaapt eet



(57) da Jan [$_{NegP}$ [*i*NEG, *i*Q] nie dikkerst [*u*NEG] tegen Valère nie mee [*u*NEG] geklaapt ...



This same pattern is found in for an example such as (31c), repeated here as (58).

(58) *dat er niemand nie vele nie gewerkt (en) eet niemand nie vele nie: *NC
that there no one not much not worked (*en*) has

Negative concord is impossible here since *nie vele* intervenes between *niemand* and *nie*, thus the three *n*-constituents involved do not have the same feature specification.

The empirical data discussed here provide us with reasons for suggesting that negative concord is not an across-the-board phenomenon but that it is a stepwise process. We therefore think that our reformulation of binary Agree will fare better in dealing with negative concord relations.

5.2.3. A final note on *en*

In West Flemish *en* occurs in finite clauses, it requires the presence of a negative constituent and it is compatible with any type of negative constituent which has sentential scope. Zeijlstra (2004) treats *en* along with other elements that enter into a negative concord relation: for him, it has an [*u*NEG] feature which is deleted by Agree with the [*i*NEG] feature on the OP¬ in SpecNegP. Having, presumably, only the [*u*NEG] feature, *en* seems to be similar to *nie*, and indeed this is what Zeijlstra seems to assume:

> In light of the previous discussion this implies that *both negative markers in West Flemish carry* [*u*NEG]. Hence the way [negative concord] readings are composed in West Flemish does not differ significantly from the composition of [negative concord] readings in other languages, except for the fact that a vP adjunct position may be overtly filled with an element carrying [*u*NEG] (2004: 255; our italics)

He gives the analysis of (59a) (his (41)) as in (59b) (his (42))):

(59) a. da Valère nie en klaapt
that Valère not *en* talks
'that Valère doesn't talk'

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

However, if *en* has the same featural composition as *nie* then this is unexpected: *en* is not subject to the constraints displayed by *nie* and in particular, unlike *nie*, it can also co-occur with the more complex *n*-constituents:

(59) c. da Valère nie vele (*nie) en-klaapt
that Valère not much (*not) *en* talks
d. da Valère geen werk (*nie) en-oat
that Valère no work (*not) *en* had

Following Breitbarth and Haegeman (2008) we adopt a slightly different account for *en*: in our view it is a spell out of an emphatic feature on a high PolP. The obligatory presence of a negative constituent is due to the fact that Pol as such has an unvalued feature [*u*POL] which needs to be valued by a clause mate negative constituent. Thus we distinguish between *nie*, which comes with an uninterpretable [*u*NEG] feature and *en* which spells out PolP.

6. Conclusion

In this paper we have shown that considering some challenging data from West Flemish leads to questions concerning the implementation of Multiple Agree as a process simultaneously affecting one probe and multiple goals, at least for the analysis of negative concord. 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 as conceived originally as a binary operation offers a way of dealing with the various intervention effects found in West Flemish negative concord.

There are empirical and theoretical consequences of our proposal that we hope to return to in future work. In particular we want to refine the maximization requirement on negative concord, and examine whether it can be derived from a structural intervention account, and 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 to our proposal. In the present paper

we hope to have shown that the intriguing negative concord phenomena in West Flemish shed some doubt on the validity of Multiple Agree as an operation of narrow syntax.

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