Negation

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1. Introduction

1.1. Variation in the expression of sentential negation

The syntactic expression of sentential negation has given rise to a lot of research in most, if not all, linguistic frameworks. A wide range of issues arise when one considers the encoding of sentential negation ranging from morphological to syntactic, semantic and pragmatic issues.

Within generative grammar, research on negation centers on a range of topics. We illustrate some of these in this introduction and then we will zoom in on one particular area of interest in the main discussion of the paper. Consider the data in (1)-(3).

(1) French

Jean ne lit pas le Monde.

Jean *ne* reads not Le Monde

'Jean doesn't read Le Monde.'

(2) Italian

Gianni non legge La Repubblica.

Gianni *non* reads La Repubblica

'Gianni does not read La Repubblica.'

(3) English

John doesn't read The Guardian.

French sentential negation is expressed by means of a combination of a particle *ne* on the finite verb and a free morpheme *pas*, in Italian the particle *non* prefixed to the finite verb expresses sentential negation. Unlike Italian *non*, French *ne* cannot express negation all by itself. In English the free morpheme *not* expresses sentential negation. Though these examples suffice to show that negation is not uniform cross-linguistically, these and additional data also suggest that sentential negation may be expressed in a designated position in the clause. Thus, one issue that has given rise to a lot of discussion is the questions how precisely sentential negation is encoded cross linguistically. Kayne (1989) and Pollock (1989) sparked a lot of cross-linguistic work when they suggested that the functional structure of the clause includes a designated projection "Negation Phrase" (NegP) which encode sentential negation. The bipartite expression of sentential negation in French (1) would then illustrate a case in which the head of NegP is realized as *ne* and its specifier as *pas.* In Italian, on the other hand, only the head is spelt out as *non*, and in English *not* spells out the specifier. Comparative work on the nature of the realization of NegP has led to questions such as (i) is there is a NegP in all languages?, (ii) if so, is there a unique projection that is committed exclusively to the expression of sentential negation?, (iii) if there is such a unique projection, does it have a unique position in the

clause?, and (iv) is it possible to have several NegPs? (see Zanuttini 1997 and Lindstad 2007 for recent discussion), (v) is the expression of sentential negation stable over time? (e.g., van Gelderen 2008). These questions have gained prominence as cross-linguistic work on negation has progressed, in particular on Romance languages (Zanuttini 1997, 2001), but also on a number of other and unrelated languages (e.g., Lindstad 2007, Moscati 2006 for a survey of the literature).

In addition to having one designated element, the marker of sentential negation, languages often allow for the expression of negation through other negative expressions which, apart from encoding negation, also contribute independently to the interpretation of the clause. Again looking at the three languages above, negative adverbs such as *jamais* 'never', *mai* 'never' and *never* may also contribute to the expression of sentential negation. As seen in the examples, there is cross-linguistic variation: while in French (4) and Italian (5) the preverbal marker of sentential negation is also present, in English *never* is the sole expression of negation. Adding *not* to (6) cancels the sentential negation expressed by *never*:

(4) French

Jean ne lit jamais le Monde.

Jean *ne* reads never Le Monde

'Jean never reads Le Monde.'

(5) Italian

Gianni non legge mai La Repubblica.

Gianni *non* reads never La Repubblica

‘Gianni never reads *La Repubblica*.’

(6) English

John has never (#not) read The Guardian.

Similarly, negative arguments such as *nothing* and its equivalents may be implicated in the expression of sentential negation; in French (7) and in Italian (8) they co-occur with the negative particle on the finite verb, in English *nothing* expresses negation by itself:

(7) French

Jean ne lit rien.

Jean *ne* reads nothing

‘Jean doesn’t read anything.’

(8) Italian

Gianni non legge niente.

Gianni *non* reads nothing

‘Gianni does not read anything.’

(9) English

John has (#not) read nothing.

These data already show that in some languages, various expressions of negation may co-occur, and this is also shown in (10) and (11), where the equivalents of *nothing* and *never* co-occur. Once again if *nothing* and *never* co-occur in English this gives rise to a double negation: the negation on *nothing* cancels the negation on *never.* The pattern in which

two negative expressions, such as *jamais* 'never' and *rien* 'nothing', which each individually may contribute to the expression of sentential negation, co-occur and express a single sentential negation is referred to as "negative concord". Based on the observed contrasts, it is proposed that a distinction be made between negative concord languages such as French and Italian and non-negative concord languages such as English (see e.g,, Zeijlstra 2004 for a specific proposal as to how this can be captured theoretically).

(10) French

Jean ne lit jamais rien.

Jean *ne* reads never nothing

'Jean never reads anything.'

(11) Italian

Gianni non legge mai niente.

Gianni *non* reads never nothing

'Gianni never reads anything.'

(12) English

#*John never reads nothing*.

The data in (1)-(12), and other similar data from a wide range of languages, have led to a lot of research on the syntax and semantics of negative expressions (or "n-words", following Laka 1990, or "n-constituents") such as *never, nothing* and also nominal expressions with a negative quantifier (*no N*) (cf. Giannakidou 2006).

1.2. Negative Concord and Agree

Recently, there has been a revived interest in negative concord and the question it raises for how syntax and semantics connect (Zeijlstra 2004, Giannakidou 2006, Haegeman and Lohndal 2010). One point that has become the focus of attention is that in negative concord a negative feature seems to be instantiated on a number of constituents in the clause. For instance, in Italian (11) *non, mai* and *niente* are arguably all negative in an intuitive sense and could be said to "agree" in their negative value. This intuition is particularly relevant for research in the Minimalist program, in which the formal relation Agree plays a prominent part. Agree involves a feature agreement dependency between a Probe and a Goal, as, for instance, between the verb inflection and the subject. In English (3) the third person ending *–s* can be said to match the features of the subject *John.* In (3) Agree is a binary relation: there is one Probe and one Goal.

In addition to binary Agree, it has been proposed that the system must allow for "Multiple Agree", by which a single Probe can establish an Agree relation with Multiple Goals (Hiraiwa 2001). It would seem that negative concord lends itself rather naturally to an analysis in terms of Multiple Agree. In (5) *non* could be said to Agree with *mai,* in (8) *non* could be said to Agree with *mai,* and (11) would be an instance of Multiple Agree where *non* Agrees with both *mai* and with *niente* (cf. Brown 1999 for Russian). If it can be substantiated that negative concord is derived by Multiple Agree, then this in itself would offer support for postulating Multiple Agree as part of the theory.

In this chapter, we will discuss a number of empirical problems for deriving negative concord by way of Multiple Agree. Obviously our chapter will give the reader only a snapshot of the rich ongoing work on negation, and of its place in the Minimalist

Program, and that he or she can start exploring the rich literature by consulting the references in the present paper.

The chapter is organized as follows. Section 2 introduces the phenomenon of negative concord in West Flemish, the language that we will be focusing on. In section 3, we look at a Multiple Agree analysis of negative concord in West Flemish (Brown 1999, Zeijlstra 2004) and point out problems with this analysis. Section 4 is a conclusion.

2. Negative concord in West Flemish

The expression of sentential negation in West Flemish has been the subject of much research (see Haegeman 1995, 2002, Haegeman and Zanuttini 1991, 1996). (13) illustrates negative concord in this language.

(13) West Flemish

K'(en)-een doa nooit niets niet gezien.

I *en* have there never nothing not seen

'I have never seen anything there.'

The morpheme *–en* cliticizes onto the finite verb. It is optional, but, like French *ne*, it cannot express negation all by itself, it must co-occur with a negative constituent. We set *–en* aside in this paper (see Haegeman 2002). Each of the *n*-constituents *nooit* 'never', *niets* 'nothing' and *niet* 'not' in (13) can express a single (sentential) negation on its own,

but the *n*-constituents jointly express one sentential negation. To capture negative concord, Zeijlstra (2004) advocates Multiple Agree (see Penka 2007 for a similar analysis). We will show that for West Flemish empirical problems that arise for such an analysis because the language displays constraints on which negative elements can enter into negative concord which cannot be captured by the Multiple Agree analysis. For reasons of space, we will not be able to present a new analysis. Instead we refer the reader to Haegeman and Lohndal (2010) for an analysis that covers the West Flemish facts discussed here.

3. Negative concord is not Multiple Agree

Working within the Minimalist Program, Zeijlstra (2004) proposes that *n*-constituents which enter into negative concord are not themselves the expression of sentential negation. Rather, such expressions are semantically non-negative indefinites. This intuition is captured in terms of features. Features typically come in two flavors: interpretable/valued or uninterpretable/unvalued. As the labels suggest, features correspond in some way to semantic interpretation. Zeijlstra (2004: 245) suggests that the non-negative indefinites are associated with a [*u*NEG] feature, i.e. an uninterpretable NEG feature. The overt marker of sentential negation, *e.g.* West Flemish *niet*, also has a [*u*NEG] feature. Zeijlstra's thesis is that NegP is not instantiated in all languages: it is the presence of [*u*NEG] features in a language which triggers the projection of NegP. Sentential negation as such is then encoded by a covert negative operator OP¬ in

SpecNegP, which is associated with the feature [*i*NEG]. In Zeijlstra's terms "OP¬ (i) introduces a negation at LF, and (ii) unselectively binds all free variables under existential closure" (2004: 247). Negative concord 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 non-negative concord languages with "semantic negation".

For Zeijlstra, negative concord is derived by the operation Agree. Op¬ [*i*NEG] in SpecNegP c-commands the (multiple) [*u*NEG] *n*-constituents on the *v*P edge; hence an Agree relation can be established between [*i*NEG] and [*u*NEG]. In negative concord, multiple negative constituents jointly express one single negation. Zeijlstra (2004: 244-245) proposes that this is the result of Multiple Agree (Hiraiwa 2001): the (multiple) uninterpretable features on the negative marker and on the *n*-constituents are all checked by the unique interpretable feature on OP¬.

3.1. Application of the Multiple Agree analysis

On the basis of Czech (6a), we illustrate Zeijlstra's derivation of negative concord readings. The specifier of NegP hosts a covert operator with an interpretable feature, [*i*NEG]. In (14a), by virtue of the negative morpheme *ne* the finite verb *vidi* 'see' has the [*u*NEG] feature, and so does the *n*-word *nikoho* 'no one'. Through Multiple Agree, the features [*u*NEG] get checked and are deleted (14b).

(14) Czech (Zeijlstra 2004: 250)

a. *Milan nevidi nikoho.*

Milan NEG sees no one

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

In (15) and (16) Zeijlstra's analysis is applied to WF. (15a) is an example containing a negative marker *niet* 'not' and the preverbal negative morpheme *en.* In terms of Zeijlstra's analysis, *niet* and *en* both carry [*u*NEG]; the two [*u*NEG] features get checked by the [*i*NEG] feature on the negative operator in SpecNegP. (15b) is a representation. In (16a), sentential negation is conveyed by means of the *n*-word, *niemand* 'no one', which may be accompanied by *niet* as well as by *en.* Negative concord is derived as in (16b):

(15) West Flemish (Zeijlstra 2004: 255)

a. *da Valère niet (en) klaapt.*

that Valère not (*en*) talks

'that Valère doesn't talk'

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

(16) West Flemish (Zeijlstra 2004: 255)

a. *da Valère tegen niemand (niet) 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~~]] [$_{vP}$ (*niet* [~~*u*NEG~~]) [$_{vP}$ Valère [$_{v'}$ *en*-klaapt [~~*u*NEG~~]]]]]]

3.2. Problems for a Multiple Agree analysis

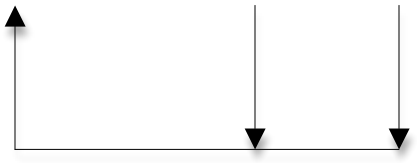
Schematically, Zeijlstra's implementation of multiple Agree for negative concord can be presented as in (17). In (17a) the unique [*i*NEG] feature of the abstract negative operator establishes an Agree relation with the [*u*NEG] feature of the two negative constituents in the clause, i.e. *niemand* 'no one' and *niet* 'not'. The application of Multiple Agree is represented in (9b). Observe crucially that the relation between the [*i*NEG] feature and the [*u*NEG] on *niet* is not local because it crosses the [*u*NEG] feature on *niemand.* In (18) we apply Zeijlstra's approach to an example with three *n*-constituents *nooit* 'never', *niemand* 'no one', and *niet vele* 'not much', entering into a negative concord relation.

(17) West Flemish

a. *dat er niemand niet gewerkt eet*.

that there no one not worked has

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



(18) West Flemish

a. *dat er nooit niemand niet vele gewerkt eet.*

that there no one not much worked has

b. dat er [$_{NegP}$ OP ¬ [*i*NEG]

nooit [*u*NEG] niemand [*u*NEG] niet vele [*u*NEG] gewerkt eet]

On the Multiple Agree account, negative concord is a one-to-many relation in which the unique negative operator agrees with each *n*-word and the *n*-words enter into negative concord by virtue of their relation to the negative operator. Crucially, there is no relation between the individual *n*-words. It turns out that by this very absence of the locality restriction on Agree, an empirical problem arises for the Multiple Agree account of West Flemish negative concord. Indeed, Haegeman and Zanuttini (1996) have already shown that in West Flemish local relations between the negative elements play a role in determining the availability of negative concord. The across-the-board application of Multiple Agree to derive negative concord leads to the wrong predictions for negative concord relations among *n*-constituents. See Haegeman and Lohndal (2010) for further discussion.

Consider (19). In (19a) *niemand* 'no one' enters into a negative concord relation with *niet* 'not', in (19b) *niemand* enters into a negative concord relation with *niet lange* 'not long' and in (19c) *niet lange, niemand* and *niet* enter into negative concord.

(19) West Flemish

a. *dat er doa niemand niet gewerkt eet.*
that there there no.one not worked has
'that no one has worked there'

b. *dat er doa niet lange niemand gewerkt eet.*
that there there not long no.one worked has
'that no one has worked there for a long time'

c. *dat er doa niet lange niemand niet gewerkt eet.*

that there there not long no.one not worked has

'that no one has worked there for a long time'

In terms of Zeijlstra's approach, these and similar data imply that *niet lange* 'not long', *niemand* 'no one', and the marker of sentential negation *niet* 'not' all carry a [*u*NEG] feature, which is checked by the [*i*NEG] feature on the sentential negative operator. Note crucially that *niet lange* and *niet* are in a negative concord relation (19c). One would thus expect that (19d), containing *niet lange* and *niet,* will also be grammatical with a negative concord reading, but this prediction is not correct. (19d) can only (marginally) have a double negation reading. When *niet* is replaced by *niet meer* 'no more' the resulting (19e) has a negative concord reading.

(11) West Flemish

d. **dat Valère doa niet lange niet gewerkt eet.*

that Valère there not long not worked has

e. *dat Valère doa niet lange niet meer gewerkt eet.*

that Valère there not long no more worked has

'that Valère hasn't worked there long any more'

The ungrammaticality of the negative concord reading in (19d) cannot be due to a ban on the co-occurrence of *niet lange* with *niet,* since (19c) also contains these two items and is grammatical with the desired negative concord reading. It is also not simply due to there

being an anti-adjacency requirement on *niet lange* and *nie*: in (19g) *niet lange* 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 needed is that *niet lange* be separated from *niet* by *niemand* ((19f), cf. also (19c)):

(19) West Flemish

f. **dat ter niemand niet lange in dat us niet gewerkt eet.*
that there no.one not long in that house not worked has

g. *dat der niet lange niemand in dat us niet gewerkt eet.*
that there not long no.one in that house not worked has
'that no one has worked long in that house'

Data such as those in (19) reveal that though "complex" *n*-constituents such as *niet lange* 'not long' can participate in negative concord readings with *niet,* they can only do so provided they are separated from *niet* by a "simple" *n*-constituent such as *niemand.* No such constraint applies to *niemand* 'no one' or to the other 'simple' *n*-words such as *nooit* 'never', *niets* 'nothing' or *nieverst* 'nowhere':

(20) West Flemish

a. *da Valère doa nooit niet gewerkt eet.*
that Valère there never not worked has
'that Valère has never worked there'

b. *da Valère doa niets niet over gezeid eet.*

that Valère there nothing not about said has

'that Valère has not said anything about that.'

c. *da Valère nieverst niet over geklaapt eet.*

that Valère nowhere not about talked has

'that Valère has never talked about anything'

For completeness' sake, note that, as shown in (19g), there is no adjacency requirement between the 'simple' *n*-constituent and *niet*, which means that it is not the case that, contrary to what one might think, such simple *n*-constituents and *niet* form a single constituent.

We conclude, with Haegeman and Zanuttini (1996), that both the type of *n*-constituents and their positions relative to each other play a role in determining negative concord in West Flemish. Because in this language all *n*-constituents (*niemand, niet lange, niet, niet meer, geen*-NP etc.) which can express sentential negation on their own appear to be able to enter into negative concord in some combinations, Zeijlstra's (2004, 2008) Multiple Agree analysis would lead us to expect that they can always *all* enter into an Agree relation with the relevant negative operator. The question arises how the application of Multiple Agree as formulated as a one time across-the-board procedure can set apart combinations that allow negative concord from those that do not. There is no way that this can be done in terms of the implementation of Multiple Agree proposed by Zeijlstra.

In order to describe the co-occurrence restrictions on negative concord in some detail. Haegeman and Zanuttini (1996: 143) classify West Flemish *n*-constituents in terms of their internal syntax and their featural make-up. Table 1 summarizes their classification

of the *n*-constituents and their associated features. [Q] is a quantificational feature; "bare" quantifiers such as *niemand* and *niets* correspond to our 'simple' *n*-words.

	Bare Q [NEG, Q]	*Geen*-NP [Q]	*Nie* [NEG]
Bare Q [NEG, Q]	Yes *niemand niets*	yes *niemand geen geld*	yes *niemand nie*
Geen-NP [Q]	Yes *geen mensen niemand*	yes *geen mensen geen tyd*	no **geen mensen nie*
Niet meer [Q]	Yes *niemand niet meer*	yes *geen mensen niet meer*	no **niet meer nie*

Table 1: Head features on negative elements and co-occurrence restrictions (Haegeman and Zanuttini 1996: 145).

Simple *n*-constituents such as *niemand* 'no one', *nieverst* 'nowhere', *nooit* 'never' and *niets* 'nothing' seem to be ambivalent in that they enter into negative concord with *niet*, as well as with composite constituents (*niet* + X or *geen-NPs*). On the other hand, composite constituents (*niet* + X or *geen*-NPs) cannot enter into negative concord with *niet.* Moreover, it looks as if negative concord readings are built up on the basis of stepwise local pairings: in (20a), for instance, *niemand* and *niet* can enter into negative concord, in (20b) *niet lange* cannot enter into a "direct" negative concord relation with

niet directly, but as seen in (20c), *niet lange* can enter into an "indirect" negative concord relation with *niet,* provided the latter is separated from the composite constituent *niet lange* by the simple *n*-constituent *niemand*. Recall also that the composite *n*-constituent *niet lange* can enter into an negative concord relation with the composite constituent *n*-constituent *niet meer* (19e).

We add that these West Flemish data are not only relevant for the evaluation of the Multiple Agree approach to negative concord. The data constitute a challenge to any theory that involves an across-the-board operation to associate the negative expressions in one way or another. For instance, an approach which derives negative concord readings by unselective binding of the *n*-constituents by one negative operator (cf. e.g. Ladusaw 1992, Acquaviva 1993, Piñar 1996, Giannakidou 1997) also is not able to derive the data observed here without additional machinery.

For reasons of space, we cannot here elaborate on an account that derives the West Flemish patters. In Haegeman and Lohndal (2010) we adopt the feature system elaborated in Zeijlstra (2004), and we pursue an approach based on binary Agree only. Our analysis is a theoretical implementation of the idea that what is going on in these cases is a pairwise matching of *n*-constituents and crucially relies on intervention to block the ungrammatical patterns.

4. Conclusion

This paper has provided a window onto one of the most debated issues in the recent generative literature on negation, namely how to analyze negative concord. It has offered a critique of accounts that argue for a Multiple Agree analysis and it has shown that this analysis does not work for negative concord in West Flemish. Instead a binary Agree analysis seems more feasible in order to account for the data.

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Footnote

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