Negative Concord in Afrikaans: filling the typological gap

Theresa Biberauer & Hedde Zeijlstra
University of Cambridge/Stellenbosch University & University of Amsterdam

Abstract

Many languages exhibit Negative Concord (NC), with multiple morphosyntactic instances of negation corresponding to one semantic negation. Traditionally, NC languages are distinguished as Strict and Non-strict (cf. Giannakidou 2000). In the former (e.g. Czech), multiple negative elements may or even must precede the finite verb, whereas in Non-strict NC languages, like Italian, only one negative element may precede the finite verb. In a recent analysis of NC (Zeijlstra 2004, 2008b), NC is analyzed as an instance of syntactic agreement between one or more negative elements that are formally, but not semantically negative and a single, potentially unrealised, semantically negative operator. On this analysis, the difference between Strict and Non-strict NC languages reduces to the semantic value of the negative marker: in Strict NC languages, both negative indefinites and negative markers are semantically non-negative; in Non-strict NC languages, by contrast, only negative indefinites are semantically non-negative, negative markers being semantically negative. This analysis predicts the existence of a third type of NC language, namely one where negative indefinites are semantically negative, but negative markers are not. This paper demonstrates that a particular variety of Afrikaans (the standard) instantiates a language of exactly this type: while pairs of negative indefinites always yield a Double Negation reading in this variety, negative markers can be stacked incrementally without giving rise to a new negation.

1. Introduction

This paper is concerned with Negative Concord (NC), i.e. the phenomenon in terms of which not every morphosyntactically negative element corresponds to a semantic negation. It has long been noted that there appear to be different types of NC languages. Thus Giannakidou (2000), for example, distinguishes Strict NC from Non-strict NC languages on the basis of the obligatoriness (Strict NC) or otherwise (Non-strict NC) of the concord marker. In this paper, we reconsider the typology of NC languages, taking Zeijlstra's (2004 *et seq.*) semantic analysis of negation systems as our point of departure. This analysis leads us to expect a type of NC system which has not previously been identified, but which we show to be instantiated

by a particular variety of Afrikaans, namely the conservative spoken and written standard. The paper is structured as follows: section 2 introduces the relevant theoretical background and also the typological gap which forms the central focus of the paper; section 3 presents the Afrikaans negation facts; section 4 focuses on the analysis of these facts; finally, section 5 concludes by summarising the main implications of the empirical facts and their analysis.

2. Theoretical background

2.1 The typology of Double Negation and Negative Concord languages

So-called *Double Negation (DN)* languages, in which every morphosyntactically negative element corresponds to a semantic negation, are traditionally distinguished from so-called *Negative Concord (NC)* languages, in which this is not the case. The distinction is illustrated here on the basis of Dutch (DN) and Romanian (NC):

- (1) a. *Niemand* heeft *niets* gezegd Dutch n-body has n-thing said
 DN: 'Nobody said nothing', i.e. everyone said something
 - b. Ik heb *niet niemand* gezienI have NEG n-body seenDN: 'I didn't see nobody', i.e. I did see someone
- (2) a. Ion *nu* suna pe *nimeni* Romanian

 Ion NEG calls to n-body

 NC: 'Ion doesn't call anybody'
 - b. Nimeni nu sunan-body NEG calls'Nobody calls'

Since Giannakidou (2000), it has often been argued that NC languages can be further subdivided into Strict and Non-strict NC languages. In Strict NC languages, every negative

indefinite (henceforth: *n-word*, following Laka 1990) must be accompanied by a negative marker, regardless of its clausal position; otherwise the sentence is rendered ungrammatical. This is illustrated in (3) for Czech:

- (3) a. Milan *(ne)vidi nikoho Czech

 Milan NEG.saw n-body (Strict NC)

 'Milan didn't see anybody'
 - b. Dnes *(ne)volá nikdo today NEG.calls n-body 'Today nobody calls'
 - c. Dnes *nikdo* *(*ne*)volá today n-body NEG.calls 'Today nobody calls'

In Non-strict NC languages, by contrast, only postverbal n-words must be accompanied by the negative marker; preverbal n-words are not allowed to combine with the negative marker. This is shown in (4):

- (4) a. Gianni *(non) ha telefonato a nessuno
 Gianni NEG has called to n-body
 'Gianni didn't call anybody'

 (Non-strict NC)
 - b. Ieri *(non) ha telefonato nessuno
 Yesterday NEG has called n-body
 'Yesterday nobody called'
 - c. Ieri *nessuno* (**non*) ha telefonato (a *nessuno*) yesterday n-body NEG has called to n-body 'Yesterday nobody called anybody'

2.2 Zeijlstra (2004)

Against this background, Zeijlstra (2004, 2008a,b) proposes an analysis of NC, which takes NC to be an instance of syntactic agreement, along the lines of Chomsky (1995), where agreement (realized as a consequence of the operation Agree) is a feature checking relation which involves elements that respectively carry semantically interpretable and semantically uninterpretable features:

(5) NC is an Agree relation involving one element bearing a formally interpretable feature [iNEG] and one or more further elements carrying uninterpretable formal features [uNEG].

In order to be able to explore (5) and its consequences, we first need to spell out a few crucial assumptions.

Firstly, NC languages exhibit elements that are only 'formally' negative, i.e. these elements bear [uNEG]. This entails that these elements have all the morphosyntactic properties that are characteristic of negation, while lacking the *semantics* of negation. The elements in question are therefore semantically non-negative. Zeijlstra (2004), following Ladusaw (1992), argues that in the NC languages he discusses, n-words are semantically non-negative indefinites that are syntactically marked for negation, i.e. they bear a [uNEG] feature. The semantic representation for n-words is the one in (6).

(6)
$$[[n-Q]] = \lambda P. \exists [Q(x) \& P(x)]$$
 where $Q \in \{Person', Thing', Place'...\}^1$

Second, Multiple Agree, as proposed by i.a. Ura (1996), Hiraiwa (2001, 2005) and Béjar & Rezac (2008), exists.² The authors just mentioned argue on the basis of, among other considerations, Japanese Case feature-checking that single interpretable formal features may establish Agree relations with multiple uninterpretable formal features, provided that all the

-

¹ Alternatively, one could also think of n-words as free variables. The details of these alternatives are, however, tangential to the arguments presented in this paper. For a detailed evaluation, the reader is referred to Penka (2007).

² See Haegeman & Lohndal (2010) for recent arguments, based on West Flemish negation data, against a generalised implementation of Multiple Agree in the negation context.

Agree relations respect proper locality conditions. An aspect of the conception of Agree adopted by Zeijlstra (2004, 2008b) that is worth noting is that it, unlike the Agree relations standardly assumed for φ-feature checking, assumes feature checking in the negation context to operate top-down, with the [iNEG] feature being required to c-command the [uNEG] feature(s). This interpretation of Agree is, however, by no means novel and has also been proposed by i.a. Adger (2003), von Stechow (2005), Neeleman & van der Koot (2002) and, in different terms, by Pesetsky & Torrego (2007), and it can ultimately arguably be traced back to Rizzi's (1991/1996) Criterion-based proposal, in terms of which semantically active operators, located within the left peripheral CP-domain of the clause, attracted *lower* [wh]-, [focus]- and [negation]-bearing elements into their domain to create Spec-head configurations in which agreement could take place. In short, this means that, within a proper local domain (such as a clause or an island), it is possible for there to be multiple [uNEG]-bearing elements, as long as they are all c-commanded by an element bearing [iNEG], i.e. an element that is both formally *and* semantically negative.

Third, as an overt element bearing [uNEG] necessarily requires the presence of an element carrying [iNEG], the [iNEG]-bearing element itself does not necessarily have to be overtly realised. Of course, language-specific properties determine whether this non-realisation possibility is actually employed. We may therefore conclude that if no overt element in a given well-formed sentence seems to be responsible for the checking of a [uNEG] feature, a covert element must be assumed to be responsible. Note that the logic of this formalisation explicitly rules out the possibility of postulating abstract material in the absence of a grammatically motivated rationale. It is therefore not possible for sentences lacking an overtly realised element carrying a [uNEG] feature – e.g. *Mary likes summer* – to contain a covert element carrying [iNEG].³

.

³ Although the postulation of abstract material must clearly be appropriately constrained in theories assuming material of this type, it is an open question whether such constraints should be thought of as being imposed by grammar or by processing or by other considerations. In Zeijlstra (2008), grammar is ruled out since inclusion of phonologically empty lexical items is not banned in derivational systems such as current minimalist syntax so long as these items can be shown to be systematically required in order to ensure convergence (e.g. by supplying features not introduced by overtly realised elements, which are, however, clearly required to enable checking/valuing operations to take place). In the context of Chomsky's (2005) "third factor" approach, in terms of which human languages are the product of the interaction of UG, linguistic input and non-language-specific "third factors", which include principles of efficient computation and principles of data analysis employed in acquisition, the constraint on postulating null elements would also constitute a very natural third-factor constraint on acquisition.

To conclude, the proposal amounts to saying that NC is simply a syntactic relation between a single negative operator, carrying [iNEG], which may be covert, and one or more overt elements carrying [uNEG].

The proposal that NC systematically involves Agree between [iNEG] and [uNEG] elements raises the question of how the distinction between Strict and Non-strict NC is to be accounted for.

Thus far nothing has been said about the interpretive status of the formal negative feature of negative markers. In principle, two logical possibilities present themselves: either the negative marker also carries [uNEG] and all overt negative elements (carrying [uNEG]) therefore have to establish an Agree relation with a single abstract negative operator Op, which bears the feature [iNEG]; or the negative marker carries [iNEG] itself. Zeijlstra (2004, 2008b) argues that different feature values (u/i) underlie the Strict vs Non-strict NC distinction: in Strict NC languages the negative marker carries [uNEG]; in Non-strict NC languages, it carries [iNEG]. To see how this works, consider the case of Czech and Italian.

In Czech, the negative marker *ne* is associated with Neg° (i.e. it lexicalises a syntactically projected negation head) and carries [uNEG]. The same feature is carried by preverbal and postverbal n-words. In both (7) and (8), then, an abstract negative operator must be responsible for the semantic negation, yielding the formal structures in (9) and (10) respectively. The negative operator immediately c-commands the highest instance of [uNEG].⁴

- (7) Dnes *nikdo* *(*ne*)volá

 Today n-body NEG.calls

 'Today nobody is calling'
- (8) Milan *ne*vidi *nikoho*Milan NEG.sees n-body

 'Milan doesn't see anybody'

Czech

Czech

⁴ A reviewer raises the question of why *ne* should be obligatorily present, as removing it would not affect the Agree relation between the [iNEG]-bearing abstract operator and the overtly realized [uNEG]-bearing n-words. This question, however, relates not to a property of (Strict) NC specifically, but to the more general problem of morphosyntactic agreement: why is it that particular elements, not only negative, but also person, number or gender markers – whether inflectional morphemes or independent elements – may not be omitted, despite the fact that they simply realize uninterpretable features? In the absence of an answer to this more general question, we believe it is also necessary to postpone an answer to its negation-specific instantiation.

(9) [Dnes
$$Op_{\text{-[iNEG]}}[TP \ nikdo_{\text{[uNEG]}} \ nevolá_{\text{[uNEG]}}]]$$

Czech

(10) [TP Milan $Op_{\neg[iNEG]}[Neg^{\circ} nevidi_{[uNEG]i}[v_P t_i nikoho_{[uNEG]}]]]$

Now the semantics follows immediately. As there is only one semantic negation in the syntactic representation, the meaning of the sentences also contains one negation only. This is shown for (10) in (11), simplified by abstracting away all non-argumental variables.

(11) $\neg \exists x [Person'(u) \& see'(m, x)]$

In Italian, the negative marker itself is the realisation of the negative operator, which is necessarily associated with [iNEG]. Therefore postverbal n-words can have their features checked against the negative marker *non*. The syntactic representation of (12) is thus (13). As *non* is the only semantic negation, the sentence receives an NC reading (12)-(14).

(12) Gianni *non* telefona a *nessuno*Gianni NEG calls to n-body
'Gianni doesn't call anybody'

Italian

- (13) $[_{TP} \text{ Gianni } [_{NegP} \text{ non}_{[iNEG]} \text{ telefona } [_{\nu P} \text{ a nessuno}_{[uNEG]}]]]]$
- (14) $\neg \exists u. [Person'(u) \& call'(g, u)]$

At the same time, it follows that if an n-word precedes the negative marker, its [uNEG] feature cannot be checked against *non*'s [iNEG] feature as *non* does not c-command it, thus rendering sentences like (15) ungrammatical.⁵

_

⁵ The assumption here is therefore that external-argument *nessuno* cannot have its feature checked under c-command prior to movement of the type one might assume to occur in the context of the VP-internal Subject Hypothesis (VISH – cf. i.a. Kitagawa 1986, Kuroda 1988, Sportiche 1998, and Koopman & Sportiche 1991; for structures assumed in this paper, external-argument subjects would, in VISH terms, be expected to originate within vP). If feature-checking involves Agree, however, it is not immediately clear why checking prior to movement should be ruled out. One option is, of course, to reject VISH: if external-argument subjects originate vP-externally in their surface position above *non*, it is clear that the c-command condition on checking will not be met. A possibly more appealing alternative would be to develop an account of how movement of the subject interferes with merger of *non* within the TP-domain, thus necessitating the merger of an abstract operator. We leave the details of this problem to future research, but see also the next footnote in this connection.

(15) *Ieri nessuno non ha telefonato a nessuno

Yesterday n-body NEG has called to n-body

'Yesterday nobody called anybody'

If an Italian n-word, however, precedes the verb in a sentence without a negative marker, then the syntax and semantics follows straightforwardly. In (16), which is grammatical, no overt element carries [iNEG] since *nessuno* carries [uNEG]. Hence an abstract operator immediately c-commanding *nessuno* must once again be assumed. This is demonstrated in (17).⁶

-

In the case of Italian, two items lexicalise sentential negation-related [iNEG]: non and a phonologically null element. A priori, the latter might seem like the "cheaper" option since it entails the presence of fewer features, requires less articulatory effort, etc. This mode of reasoning, however, overlooks the fact that the presence of a covert [iNEG] element introduces a potential parsing challenge in the case of structures featuring postverbal negation elements that is avoided if an overtly realised element is present in the preverbal domain. The reasoning is as follows: in the former case, hearers will need to parse much if not all of the n-wordcontaining structure before realising that an abstract negator should be postulated in the pre-vP domain, leading to the kind of "reopening" of a previously "closed off" domain problem discussed in processing approaches like that of Ackema & Neeleman (2002); in the latter case, by contrast, non directly signals the presence of an [iNEG] element, with the result that no subsequent "reopening" is required. In cases where hearers encounter a preverbal n-word subject, minimal "back-track" is required to "fill in" the required abstract operator, with no "closed off" structure needing to be "reopened" (this parallels Ackema & Neeleman's account of the locality conditions associated with Ross's (1967) Right Roof Constraint). Viewed from this perspective, one might then start to wonder why consistent use of the *overt* negative operator (lexicalised as *non*) is not what we see in Italian. The reason for that, though, once again relates to the assumptions made here about the structural representation of sentential negation: [uNEG]-bearing elements have to be c-commanded by an [iNEG]-bearing element for a negative structure to be well-formed. This would clearly not be the case where an n-word subject precedes non. Thus we derive the distribution of Italian non as a consequence of the interaction between extragrammatical ("third-factor" considerations – cf. Chomsky 2005) and formal conditions on the semantic representation of negation, in our view a very desirable outcome.

⁶ Given that Italian has an abstract negative operator in addition to the overt negative operator *non*, the following question immediately arises: why can't the abstract operator license postverbal n-words as well, giving rise to sentences such as Gianni ha telefonato a nessuno (lit: 'Gianni has called to n-body', i.e. 'Gianni has called nobody'), which is often designated ungrammatical? The explanation is the following: in the absence of an overt [iNEG]-bearing element, an abstract negative operator will always be postulated in the lowest position in the clause that still c-commands all instances of [uNEG] (see following paragraph for further discussion of what this "postulation" entails in our terms). In the case of a single postverbal n-word, it could therefore conceivably occupy a position below v°. However, this does not give rise to a sentential negation, as sentential negation requires negation to outscope the quantifier that binds the event variable, which is generally assumed to be introduced at the level of v° : the reading that arises where an abstract operator is postulated below v° is therefore something like 'there is a calling event, but there is no individual that has been called.' This leads to a semantic contradiction, as there cannot be a calling event without any callees. The sentence is thus, on our terms, not expected to be ungrammatical, but simply to yield a very marginal reading, one that can hardly ever by felicitously uttered. Native speakers confirm that this is the correct intuition as far as Gianni ha telefonato a nessuno is concerned (Roberta D'Alessandro, Silvio Cruschina, p.c.). See Herburger (2001) and Zeijlstra (2004, 2008) for a more detailed description and explanation of the semantics of postverbal n-words in clauses without preverbal n-words or negative markers. In view of this constraint on the semantic representation of sentential negation, then, an [iNEG]-bearing element which gives rise to sentential negation will always have to be merged above vP.

- (16) Ieri *nessuno* ha telefonato a *nessuno*Yesterday n-body has called to n-body

 'Yesterday nobody called anybody'
- (17) [Ieri $Op_{\neg[iNEG]}[TP \ nessuno \ ha telefonato \ a \ nessuno]]$

Evidence for the inclusion of this abstract operator also follows from sentences, acceptable to many speakers of Italian, where preverbal n-words co-occur with a negative marker and where the n-word is strongly focussed:

- (18) a. Peri NESSUNO (#) non ha telefonato a nessuno Italian Yesterday n-body NEG has called to n-body 'Yesterday nobody didn't call anybody'
 - b. [Ieri [$_{FOC} Op_{\neg[iNEG]} nessuno_{[uNEG]}$] [$_{NegP} non_{[iNEG]} telefona [_{\nu P} a nessuno_{[uNEG]}]$]]]

These constructions necessarily yield a Double Negation reading, indicating that the sentence contains an additional negative operator apart from the negative marker and that therefore Non-strict NC languages such as Italian have an abstract negative operator at their disposal even when they exhibit a negative marker carrying [iNEG]. In section 4.1, we will discuss examples such as (18) in more detail, concentrating more on the role that focus plays in restricting domains of agreement.

2.3 A typological gap?

What we have seen in the previous section is that the difference between DN and NC languages in the context of Zeijlstra's system depends on the semantic value of n-words, whereas the difference between Strict and Non-strict NC languages is dependent on the semantic value of the negative marker. However, a typological gap of the sort illustrated in (10) now arises:

(18) Zeijlstra's 2004 typology of NC and DN languages

	N-words semantically	N-words semantically
	negative	non-negative
Negative markers	DN-languages: Dutch,	Non-strict NC languages:
semantically negative	German, Swedish	Spanish, Italian, Portuguese
Negative markers		Strict NC languages:
semantically non-		Czech, Serbo-Croatian,
negative		Greek

As (18) shows, Zeijlstra's feature-based analysis of previously identified negation systems (i.e. DN and NC systems) raises the question of whether a previously unidentified fourth type, where n-words carry [iNEG] and negative markers carry [uNEG], might exist. We pursue this question in the following section.

3. In search of the missing language(s): a closer look at Afrikaans

In this section, we consider the properties of Afrikaans negation. Firstly, we demonstrate that there are two varieties of Afrikaans, which differ in respect of their expression of negation. Thereafter, we show that one of these varieties exactly meets the criteria that characterise the missing third type of negative system.

3.1 Negation in Afrikaans

Afrikaans negation has the oft-noted property that every negative sentence, regardless of whether it contains an n-word or a negative marker, ends with the (extra) negative marker *nie* (cf. Waher 1978, den Besten 1986, Robbers 1992, Oosthuizen 1998, Biberauer 2008a,b, 2009 for discussion). This is illustrated below:

(19) Hy is *nie* moeg *nie* he is NEG tired NEG 'He is not tired'

(20) Hy is *nooit* moeg *nie*he is never tired NEG
'He is never tired'

In principle, then, Afrikaans negative sentences consist either of an n-word and a negative marker or of a combination of two negative markers. The only exception to this generalisation arises where two negative markers are spelled out adjacent to one another in the same prosodic domain; in this scenario, only one *nie* survives (see Biberauer 2008a,b for arguments that this scenario involves a real instance of haplology):

- (21) a. Hy kom *nie* (**nie*) he come NEG NEG 'He isn't coming'
 - b. Wat verstaan hy hoegenaamd *nie* (**nie*)? what understand he absolutely NEG NEG 'What does he absolutely not understand?'

One aspect of Afrikaans negation that has not previously been noted in the literature is that there in fact appear to be two distinct varieties of this language, which differ in respect of the way in which they express negation. The properties of these varieties are the focus of the following section.

3.2 Variation in Afrikaans negation

For ease of reference, we will refer to the systems under consideration here as *Variety A* and *Variety B*. Both varieties are presently spoken in South Africa, although Variety A, which corresponds to a conservative variety of the spoken language, is losing ground to Variety B, which incorporates various prescriptively proscribed properties and is particularly common among younger speakers (see also Biberauer & Zeijlstra 2010 for further discussion). Varieties A and B differ in two major respects, which we will now consider in turn.

Firstly, two n-words always yield a DN reading in Variety A. This is shown in (22):

(22) Niemand het niks gekoop nie

n-body has n-thing bought NEG

DN: 'No-one had bought nothing', i.e. 'Everyone bought something'

Strikingly, one or more of the n-words in structures of this type must be focused; it is not possible to utter (22)-type structures with neutral intonation (cf. DN structures more generally, a point to which we return below).

In Variety B, by contrast, multiple n-words can yield both DN (once again, subject to appropriate focusing of one or more n-words) and, additionally, NC readings (cf. Biberauer 2009, Huddleston 2010). This is shown in (23):

(23) Niemand het niks gekoop nie
n-body has n-thing bought NEG
NC: 'No-one had bought anything' and DN: 'No-one had bought nothing', i.e. 'Everyone bought something'

Secondly, in Variety A, a negative marker *nie* may only follow an n-word if the n-word is sentence-final, as in (24), or it constitutes a fragmentary answer, as in (25); as shown in (26), it may not do so sentence-internally:

- (24) Hier slaap *niemand nie*here sleeps n-body NEG
 'Nobody sleeps here'
- (25) Wie het my boek gesien? *Niemand (nie)* who has my book seen? n-body NEG 'Who saw my book? No-one'
- (26) a. Niemand (*nie) het die werk voltooi nie
 n-body NEG has the work finished NEG
 'Nobody has finished the work'
 - b. Ek het *niemand (*nie)* gesien *nie*I have no-one NEG seen NEG

 'I saw no-one'

Like Variety A, Variety B permits both (24)- and (25)-type structures; unlike Variety A, however, it also allows *nie* to occur finally in many phrases containing an n-word, mostly leading to an emphatic effect. The examples in (26) are therefore well-formed even when *nie* surfaces clause-internally at the right edge of n-words.

Having outlined the distinctive properties of the two varieties of Afrikaans under consideration here, we turn to the analysis of these facts.

4. Proposed analysis

In this section, we will argue that:

- a. Variety A represents an instance of the missing type of negation system highlighted in (10) above, i.e. one in which all n-words carry [iNEG], while the negative marker carries [uNEG]; and
- b. Variety B is a Strict NC language in which both n-words and the negative marker carry [uNEG].

4.1 Variety A

If n-words bear [iNEG] in Variety A, the expectation is that every combination of two n-words will yield a DN reading. As we saw in (22), repeated as (29) below, this is indeed the case.

(27) Niemand_[iNEG] het niks_[iNEG] gekoop nie_[uNEG]

n-body has n-thing bought NEG

DN: 'No-one had bought nothing', i.e. 'Everyone bought something'

If n-words carry [iNEG], we expect an n-word co-occurring with *nie* in sentence-final position, or in a fragmentary answer, to permit only an NC reading, one which results from an Agree relation between the n-word's [iNEG] feature and the [uNEG] feature on *nie*. These predictions are also borne out, as (28) and (29) show:

(28) Hier slaap *niemand*[iNEG] *nie*[uNEG] here sleeps n-body NEG

'Nobody sleeps here'

(29) Wie het my boek gesien? *Niemand*[iNEG] (*nie*[wNEG]) who has my book seen? n-body NEG
'Who saw my book? No-one'

Analogously to all other NC languages that feature a negative marker carrying [uNEG], we assume that an abstract negative operator checks the [uNEG] features on the negative markers in structures lacking an overt negative item carrying [iNEG]. This is shown for Afrikaans in (30), which, in this respect, is fully analogous to Czech (shown in (31)), a Strict NC language which therefore also features a negative marker carrying [uNEG]):

- (30) a. Hy is *nie* moeg *nie*he is NEG tired NEG
 'He is not tired'
 - b. [Hy is $Op_{\neg[iNEG]} nie_{[uNEG]} moeg nie_{[uNEG]}$]
- (31) a. Milan ne-volá
 Milan NEG.calls
 'Milan doesn't call'
 - b. Milan $Op_{\neg[iNEG]} ne_{[uNEG]}$ -volá $| \qquad |$

Still unexplained, however, is why a single n-word surfacing with two negative markers does not yield an NC reading; given that both instances of *nie* are analysed as [uNEG] elements, while the n-word bears [iNEG], an NC reading would seem to be what our system leads us to expect:

(32) Niemand_[iNEG] het nie_[uNEG] die werk voltooi nie_[uNEG]

n-body has NEG the work completed NEG

*NC: 'Nobody completed the work'

DN: 'Nobody didn't complete the work'

An important property of structures like (32), however, is that they are heavily restricted, necessarily requiring a DN reading wherever they occur. In order to understand these structures, let us consider their properties in a little more detail.

Strikingly, (32)-type structures can only be uttered felicitously in a very specific context, namely that in which a speaker rejects a negative presupposition previously asserted in the conversation, i.e. where they serve as a denial of a previously asserted utterance. As with denial structures more generally (cf. Horn 1985, 1989, Gyuris 2009), these structures necessarily feature special emphasis on one of the negated elements. Thus, if the n-word is the subject of a structure of this type, as is the case in (33a), either the n-word or the negative marker or both must receive stress for the utterance to be felicitous, as (33a-d) show:

- (33) a. Speaker 1: Net HANS het *nie* die werk voltooi *nie*, né? only Hans has NEG the work completed NEG right 'It was just Hans who didn't finish the work, right?'
 - Speaker 2: Nee, *NIEMAND* het *nie* die werk voltooi *nie*no n-body has NEG the work completed NEG
 'No, NO-ONE didn't finish the work' (focused subject)
 - Nee, niemand het NIE die werk voltooi nie
 no n-body has NEG the work completed NEG
 'No, nobody has NOT finished the work/No, nobody DIDN'T finish the work'
 (focused negative marker)
 - c. Nee, *NIEMAND* het *NIE* die werk voltooi *nie*no n-body has NEG the work completed NEG
 'NOBODY has NOT finished the work'
 - d. *Nee, *niemand* het *nie* die werk voltooi *nie*no n-body has NEG the work completed NEG

The same is true for non-subject n-words, with the important caveat that unstressed *nie*, as in (34a), must be realised as part of a prosodic phrase *distinct* from the following negative marker (the significance of this point will become clear in section 4.2 below):

- (34) a. Ek het vir [NIEMAND] [nie] 'n boek gekoop nie

 I have for n-body NEG a book bought NEG

 'There was NO-ONE I didn't buy a book for'
 - b. Ek het vir *niemand NIE* 'n boek gekoop *nie*I have for n-body NEG a book bought NEG

 'There's no-one I DIDN'T buy a book for', i.e. 'I bought a book for everyone'
 - c. Ek het vir *NIEMAND NIE* 'n boek gekoop *nie*I have for n-body NEG a book bought NEG

 'There was NO-ONE for whom I DIDN'T buy a book'
 - d. *Ek het vir *niemand nie* 'n boek gekoop *nie*I have for n-body NEG a book bought NEG

The fact that these constructions can only be uttered felicitously in denial contexts indicates that plain double negation (i.e. the semantic effect that two negative expressions in a DN language yield) is not involved here. What happens is that the second speaker rejects a claim made by the first speaker, since Speaker 2 takes himself to be more certain about the state of affairs in question than Speaker 1. The phenomenon, where a speaker conveys strong certainty of this type, is known as *Verum Focus* (Höhle 1992, Romero & Han 2004, Gyuris 2009) and is often attested in cases where a previous utterance is denied. This is illustrated below:

- (35) a. Speaker 1: Mary is nice, isn't she?

 Speaker 2: No, Mary is NOT/ISN'T nice
 - b. Speaker 1: You don't like spinach, do you?

Speaker 2: No, I DO like spinach

Romero & Han (2004) propose that there are two instances of Verum Focus: *Positive Verum Focus* and *Negative Verum Focus*. Positive Verum Focus may be signalled by emphatic *do*-support in languages like English (cf. (27b)), while Negative Verum Focus (referred to as *Falsum Focus* in Gyuris 2009), requires a stressed negative element of some description (cf. (27a)). The semantic representations that Romero & Han (2004) provide for Positive and Negative Verum Focus respectively are given in (36):

(36)
$$[[VERUM]] = \lambda p.\lambda w. \forall w' \in Epi_S(w) [\forall w'' \in Conv_S(w')[p \in CG_{w''}]]$$
 ('it is for sure that we should add p to the common ground')

[[FALSUM]] =
$$\lambda p.\lambda w. \forall w' \in Epi_S(w)[\forall w'' \in Conv_S(w')[\neg p \in CG_{w''}]]$$

('it is for sure that we should add that it is not the case that p to the common ground')

This explains the readings in (26) where the second speaker expresses his certainty about the truth/falsity of the utterance made by the first speaker. It also explains why cases like (26) can only be uttered after a preceding regular negative sentence: Verum and Falsum Focus necessarily operates on full propositions. What, however, still remains an open question in the context of the Agree-based system proposed here is why two negations do not establish an Agree relation yielding an NC reading when one of them receives Verum Focus. The reason for this is that it appears to be a general property of Focus (including Verum/Falsum Focus) that it always disrupts Agree relations. This builds on an observation dating back to Haegeman & Zanuttini (1996: 167, note 26) and Corblin et al. (2004), which, strikingly, holds in both Strict and Non-strict NC languages. Consider Strict NC Serbo-Croatian (37) (Boban Arsenijević, p.c.)) below (and see also Haegeman 1995 for West Flemish, Corblin et al. 2004 for French, Herburger 2001 for Spanish and Falaus 2007 for Romanian, all of whom note that this type of focus on negation leads to DN readings):

(37) Speaker 1: Ko *nije* video *nikog*? Serbo-Croatian who NEG.have seen n-body 'Who saw no one?'

Speaker 2: NIKO (nije video nikog)
n-body NEG.has seen n-body

'NOBODY didn't see anybody'

Precisely what formally underlies Agree-disruption by Focus is a matter that must, for the moment, be left to future research, but we observe that Agree-disruption is not restricted to the domain of Negative Concord; other types of concord phenomena also seem to exhibit this effect. Consider, for instance, the examples in (38) and (39), where a Sequence of Tense and a Modal Concord relation are disrupted in the presence of focus intonation (cf. Zeijlstra 2008c for the Modal Concord data). In (38a) the most salient reading is the one where John's saying and Mary's illness temporally overlap (cf. von Stechow 2005 amongst many others); in (38b) this reading is no longer available. Likewise, (39a) comes with a reading that is equivalent to the reading that the sentence would get without the modal auxiliary *must*; in (39b) this reading is out. ⁷

- (38) a. John said that Mary was ill (simultaneous interpretation possible)
 - b. John said that Mary WAS ill (simultaneous interpretation impossible)
- (39) a. The general demanded that the troops must surrender (Modal Concord reading possible)
 - b. The general demanded that the troops MUST surrender

 (Modal Concord reading excluded)

One possibility that suggests itself is that the structure hosting the focus features (possibly, a peripheral Focus projection/layer) in fact "seals off" the phrase it is associated with, thereby effectively creating a syntactic island. The island effect may in fact result from an intervention effect created by the presence of a focus operator that is absent when the structures in question are unfocused (cf. Biberauer & Roberts 2009 for a speculation along these lines). Note that this fully in line with the idea that focussed expressions are interpreted as structured meanings in terms of foreground-background semantics and that focussed phrases should be

_

⁷ An anonymous reviewer points to a related case where Focus does not appear to interfere with Agree relations. The example cited by the reviewer is the following:

⁽i) Peter said that Mary wasn't ill, and John said that she WAS (ill).

Here, past-tense agreement remains possible, despite the fact that *was* is focused. The difference between (38b) and (39b) seems to us to be directly connected to the fact that (i), unlike the examples in the main text, exhibits contrastive *polarity-related* focus whereas (38b) and (39b) do not. See Haegeman (2010) for discussion of the peculiarities associated with specifically polarity-related uses of focused auxiliaries.

interpreted as an atomic unit at LF (cf. von Stechow & Zimmermann 1984, von Stechow 1990, Rooth 1992, Krifka 2001). This, in a sense, also goes back directly to Chomsky's idea that what ultimately underlies phase theory is duality of semantics, with discourse properties like focus calling for independent layers of interpretation (Chomsky 2001).

We have seen, then, that the unavailability of NC readings between a co-occurring n-word and a negative marker can be understood to fall out from a pattern that is more generally observed, both in NC and DN systems. A further question, pointed out to us by an anonymous reviewer, still remains, however: why (32), *without* additional focus, still cannot yield an NC reading. The relevant consideration here is that the relevant NC reading is already guaranteed in the absence of the medial *nie*. Consider (40):

- (40) a. Niemand_[iNEG] het die werk voltooi nie_[uNEG]

 n-body has the work completed NEG

 NC: 'Nobody completed the work'
 - b. Niemand[iNEG] het nie[uNEG] die werk voltooi nie[uNEG]

 n-body has NEG the work completed NEG

 *NC: 'Nobody completed the work'

As (40a) shows and as we have seen above, an NC reading results wherever an n-word cooccurs with a negative marker. Given the availability of this structure to express the NC
meaning, we do not expect (40b) to be able to express the same meaning as the addition of
further negative markers would have to be functionally motivated. One might nevertheless
question why (40b) cannot be interpreted as an emphatic NC structure (i.e. NOBODY
completed the work). The answer to this question is partially historic in that Afrikaans
employs the same strategy found in Dutch in order to emphasise negative constituents: focus
the constituents themselves (i.e. NIEMAND het die werk voltooi nie, in the case under
discussion here). As we will see below, Afrikaans Variety B does permit additional nies in
emphatic negation structures, but these crucially associate with the focused n-word,
necessarily having to be part of the constituent they emphasise. Unstressed (40b) is therefore
ruled out as a possible NC structure on functional grounds.

To conclude, then, the assumption that n-words in Afrikaans Variety A carry [iNEG], while *nie* carries [uNEG] correctly predicts the observed patterns. Cases that seem to

undermine this analysis prove to be the result of the more generally recognised interaction between negation and focus and therefore do not pose problems for the proposed analysis.

4.2 Variety B

As illustrated above, Variety B differs from Variety A in two respects: firstly, multiple n-words may yield an NC reading in addition to the DN reading that is obligatory in Variety A, and secondly, the distribution of *nie* is freer as it may surface finally in many phrases containing an n-word whereas this possibility is very restricted in Variety A.

Semantically, the only difference between Varieties A and B is that n-words cannot be taken to carry [iNEG] in the latter. If they did, the prediction would be that two n-words would always yield a DN reading, counter fact. If, instead, we assume n-words in this variety to carry [uNEG], the fact that introducing a second n-word does not introduce a new semantic negation is accounted for. Under this proposal, then, Variety B is a Strict NC language of the familiar type since all overt instances of negation are semantically non-negative. An abstract negative operator thus always induces the semantic negation, as shown below:

- (41) a. Niemand_[uNEG] het niks_[uNEG] gekoop nie_[uNEG]

 n-body has n-thing bought NEG

 NC: 'Nobody had bought anything'
 - b. $[Op_{\neg[iNEG]} \ Niemand_{[uNEG]} \ het \ niks_{[uNEG]} \ gekoop \ nie_{[uNEG]}]$

The fact that *nie* may be included in non-sentence-final position in examples like (26), repeated here as (42), and also in (43), which are ruled out in Variety A, also follows under the analysis that *nie* carries [uNEG] in Variety B. For a detailed explanation of the differences between Varieties A and B regarding the exact distribution of *nie*, the reader is referred to Biberauer (2009, 2010), who argues that these result from differences in the peripheral structure available to phrasal categories in the two varieties (essentially, Afrikaans B has generalised the Polarity Phrase projected at the left periphery of clausal XPs and spelled out as clause-final *nie* to phrasal categories more generally; consequently, negated and negative XPs generally may feature phrase-final *nie* in Afrikaans B):

- (42) Ek het vir *niemand nie* 'n boek gekoop *nie*I have for n-body NEG a book bought NEG

 NC: 'I didn't buy a book for anybody'
- (43) GEEN/nie EEN van die studente nie het die werk voltooi nie no / NEG one of the students NEG has the work finished NEG NC: 'NONE/Not ONE of the students finished the work'

Crucially, phrase-final *nie* in examples like (42)-(43) cannot be stressed and it also necessarily occupies the same prosodic phrase as the preceding n-word/sub-clausal phrase (in terms of Biberauer's analysis, it is the spellout of the left-peripheral edge of the relevant XP). This *nie*, then, is different from that in denial structures such as those illustrated in (34) above.

To conclude, then, the proposal that n-words in Variety A carry [iNEG], whereas their counterparts in Variety B carry [uNEG] facilitates an understanding of the semantic differences between these varieties. Importantly, both Variety A and Variety B exhibit the property Zeijlstra (2004 and following) ascribes to Strict NC languages, having semantically non-negative negative markers. Crucially, however, we see that languages that lack semantically negative markers may differ in respect of the semantic status of their n-words and do not require that their n-words be semantically non-negative as well. This previously unobserved fact suggests a potentially important "missing link" in the diachronic pathway via which DN languages become NC languages. More specifically, the proposal is that at least certain types of DN to NC changes may in fact progress via a pathway defined in terms of increasing formal non-negativity: while both negative markers and n-words are [iNEG] in DN languages, the existence of Afrikaans A-type systems suggests that the next stage can involve a system featuring [iNEG]-bearing n-words and [uNEG]-bearing negative markers; thereafter it then becomes possible for these latter elements to become [uNEG], ultimately delivering a Strict NC system. To the extent that it accurately characterises actually existing "intermediate" NC systems in a manner that is not readily formulable on alternative analyses, it may be possible to further evaluate the validity of the analysis suggested here by investigating diachronic developments.⁸

⁸ It is worth noting, however, that the considerations that gave rise to Afrikaans A, the prescriptively sanctioned variety, are such that the fact that a system of this type has not previously been identified may relate to the fact

5. Conclusions

In this paper, we have examined the expression of negation in Afrikaans, arguing that two distinct negation systems can in fact be identified. In one system, that associated with a conservative variety, which we designate *Variety A*, n-words are carriers of semantic negation and are therefore equipped with an interpretable [iNEG] feature. The negative marker, *nie*, by contrast, is semantically non-negative and therefore carries [uNEG]. Variety B, on the other hand, is a typical Strict NC language where all overt morphosyntactic instances of negation are semantically non-negative, with an abstract negative operator inducing semantic negation. In this variety, then, both n-words and negative markers bear [uNEG].

Furthermore, we have demonstrated that Variety A neatly fills the typological gap that arises from Zeijlstra's (2004, 2008a,b) analysis of NC. There are indeed languages where n-words are semantically active and negative markers are not:

(45) Our typology of NC and DN languages

	N-words semantically	N-words semantically
	negative	non-negative
Negative markers	DN-languages: Dutch,	Non-strict NC languages:
semantically negative	German, Swedish	Spanish, Italian, Portuguese
Negative markers	Afrikaans A	Strict NC languages:
semantically non-		Czech, Serbo-Croatian,
negative		Greek, Afrikaans B

Finally, the Afrikaans data indicate that the traditional two-way distinction between Strict and Non-strict NC languages is inadequate: apart from Strict and Non-strict languages, a third type of NC language exists. This refinement opens up new possibilities for the understanding of syntactico-semantic microvariation between superficially very similar systems and, by extension, of how diachronic negation-related changes, including those

that such systems do not arise spontaneously, without normative intervention. As such, we might expect them to be inherently unstable (cf. Biberauer & Zeijlstra 2010 for further discussion).

involved in Jespersen's famous Cycle, may have come about. Better understanding of the typological gap highlighted in this paper may, then, have far-reaching consequences.

Authors' addresses

Theresa Biberauer Hedde Zeijlstra

Linguistics Department University of Amsterdam

Sidgwick Avenue Spuistraat 134 (lsg NTK)

Cambridge 1012 VB

CB3 9DA Amsterdam

England The Netherlands

Email: mtb23@cam.ac.uk zeijlstra@uva.nl

Acknowledgements

We gratefully acknowledge the following for their comments, questions, criticisms and help with data: Maria Aloni, Boban Arsenijević, Anne Breitbarth, Hans den Besten, Silvio Cruschina, Roberta D'Alessandro, Roland Hinterhölzl, Doris Penka and Arnim von Stechow and the audiences of BLS and CGSW 2009. Usual disclaimers apply.

References

Ackema, Peter and Neeleman, Ad. 2002. Effects of short-term storage in processing rightward movement. In *Storage and Computation in the Language Faculty*, eds. Sieb Nooteboom, Fred Weerman and Frank Wijnen, 219-256. Dordrecht: Kluwer.

Adger, David. 2003. Core Syntax: a minimalist approach. Oxford: Oxford University Press.

Béjar, Susana and Rezac, Milan. 2008. Cyclic Agree. Linguistic Inquiry 40: 35-73.

Biberauer, Theresa. 2008a. Doubling and omission: insights from Afrikaans negation. In *Microvariations in Syntactic Doubling*, ed. Sjef Barbiers, Olaf Koeneman, Marika Lekakou and Margreet van der Ham, 103-140. London: Emerald.

Biberauer, Theresa. 2008b. On some peculiarities of Afrikaans negation and their theoretical implications. Talk given at UiL-OTS (Utrecht).

Biberauer, Theresa. 2009. Jespersen off course? The case of contemporary Afrikaans negation. In *Linguistic Cycles*, ed. Elly van Gelderen, 91-130. Amsterdam: Benjamins.

Biberauer, Theresa. 2010. Competing reinforcements: when languages opt out of Jespersen's Cycle. To appear in *Historical Linguistics 2009: Selected papers from the 19th*

- *International Conference on Historical Linguistics*, eds. A. Van Kemenade and N. de Haas. Amsterdam: John Benjamins.
- Biberauer, Theresa and Roberts, Ian. 2009. Negative words and related expressions: a new perspective on some familiar puzzles. To appear in *Cycles of Grammaticalization*. *Comparative views on the history of negation*, eds. Richard Ingham and Pierre L'Arrivée. Cambridge: Cambridge University Press.
- Biberauer, Theresa and Zeijlstra, Hedde. 2010. Negative changes: three factors and the diachrony of Afrikaans negation. To appear in *Diachronic Syntax: Parameter Theory and Dynamics of Change*, eds. Juanito Avelar, Sonia Cyrino, Charlotte Galves and Ruth Lopez. Oxford: Oxford University Press.
- Chomsky, Noam. 1995. The Minimalist Program. Cambridge, Mass: MIT Press.
- Chomsky, Noam. 2001. Derivation by phase. In *Ken Hale: A life in language*, ed. Michael Kenstowicz, 1–52. Cambridge, MA: The MIT Press.
- Chomsky, Noam. 2005. Three factors in language design. Linguistic Inquiry 36:1-22
- Corblin, Francis, Viviane Déprez, Henriëtte de Swart and Lucia Tovena. 2004. Negative concord. In *Handbook of French Semantics*, ed. Francis Corblin and Henriëtte de Swart, 417-452. Stanford: CSLI Publications.
- Den Besten, Hans. 1986. Double Negation and the Genesis of Afrikaans. In *Substrata versus Universals in Creole Genesis*, ed. Pieter Muysken and Norval Smith, 185-230. Amsterdam: John Benjamins.
- Falaus, Anamaria. 2007. Negative concord and double negation: The Romanian puzzle. In *Romance Linguistics 2006*, ed. José Camacho, Nydia Flores-Ferrán, Liliana Sánchez, Viviane Déprez and María José Cabrera, 135-148. Amsterdam: Benjamins.
- Fukui, Naoki & Peggy Speas. 1986. Specifiers and Projections. *MIT Working Papers in Linguistics* 8, 128-172.
- Giannakidou, Anastasia. 2000. Negative ... Concord? *Natural Language and Linguistic Theory* 18:457-523.
- Gyuris, Beáta. 2009. Quantificational contrastive topics with verum/falsum focus. *Lingua* 199(4): 625-649.
- Haegeman, Liliane. 1995. The Syntax of Negation. Cambridge: Cambridge University Press.
- Haegeman, Liliane. 2010. Conditional clauses, Main Clause Phenomena and the syntax of polarity emphasis. Unpublished ms: Ghent.
- [Available on-line at: http://www.gist.ugent.be/index.php?id=81&type=file]

- Haegeman, Liliane and Terje Lohndal. 2010. Negative Concord and (Multiple) Agree: A. Case Study of West Flemish. *Linguistic Inquiry* 41: 181-211.
- Haegeman, Liliane and Raffaella Zanuttini. 1996. Negative concord in West Flemish. In Parameters and Functional Heads. Essays in Comparative Syntax, ed. A Belletti and L. Rizzi, 117-179. Oxford: Oxford University Press.
- Herburger, E. 2001. The negative concord puzzle revisited. *Natural Language Semantics* 9:289-333.
- Hiraiwa, Ken. 2001. Multiple Agreement and the Defective Intervention Effect. In *The Proceedings of the MIT-Harvard Joint Conference (HUMIT 2000)*, ed. Matsushansky, Ora. et. al., 67-80. Cambridge, Mass.: MITWPL.
- Hiraiwa, Ken. 2005. Dimensions in Syntax. Ms., University of Tokyo.
- Höhle, Tilman. 1992. Über Verum Fokus im Deutchen. In *Informationsstruktur und Grammatik*, ed. Joachim Jacobs, 112-141. Opladen: Westdeutscher Verlag.
- Horn, Larry. 1985. Metalinguistic negation and pragmatic ambiguity. *Language* 61:121-174.
- Horn Larry. 1989. A Natural History of Negation. Chicago: CSLI.
- Huddleston, K. 2010. Negative Indefinites in Afrikaans. Ph.D. dissertation, Utrecht.
- Kitagawa, Yoshihisa. 1986. Subjects in English and Japanese. Ph.D. dissertation: UMass (Amherst).
- Koopman, Hilda and Sportiche, Dominique. 1991. The Position of Subjects. *Lingua* 85: 211–258.
- Krifka, Manfred. 2001. For a structured meaning account of questions and answers. In *Audiatur Vox Sapientia. A Festschrift for Arnim von Stechow*, ed. Caroline Féry and Wolfgang Sternefeld, 287-319. Berlin: Akademie Verlag.
- Kuroda, S. Yuki (1988). Whether We Agree or Not: A Comparative Syntax of English and Japanese. In *Papers from the Second International Workshop on Japanese Syntax*, ed. William Poser, 103-143. Stanford, CA: CSLI Publications.
- Ladusaw, William. 1992. Expressing negation. In *Proceedings of SALT II (Ohio Working Papers in Linguistics* 40), ed. Chris Barker and David Dowty, 237-259. Ohio: Ohio State University.
- Laka, Itziar. 1990. Negation in Syntax. Ph.D. dissertation, MIT.
- Neeleman, Ad and van der Koot, Hans. 2002. The Configurational Matrix. *Linguistic Inquiry* 33: 529-574.
- Oosthuizen, Johan. 1998. The final *nie* in Afrikaans negative sentences. *Stellenbosch Papers* in Linguistics 31:61-94.

- Penka, Doris, 2007. Zur Semantik der negativen Indefinita im Deutschen. Ph.D. dissertation, Universität Tübingen.
- Pesetsky, David, and Torrego. Esther. 2007. The syntax of valuation and the interpretability of features. In *Phrasal and clausal architecture*, eds. Simin Karimi, Vida Samiian, and Wendy Wilkins. Amsterdam: Benjamins.
- Rizzi, Luigi 1991. Residual Verb Second and the Wh-Criterion. *Technical Reports in Formal and Computational Linguistics* 2. University of Geneva. Republished as:
- Rizzi, Luigi 1996. Residual Verb Second and the Wh-Criterion. In *Parameters and Functional Heads*, eds. Adriana Belletti and Luigi Rizzi, 63-90. Oxford University Press: Oxford.
- Robbers, Karen. 1992. Properties of negation in Afrikaans and Italian. In *Linguistics in the Netherlands*, eds. Reineke Bok-Bennema and Roeland van Hout, 223-234. Amsterdam: Benjamins.
- Romero, Maribel and Han, Chung-hye. 2004. On Negative *Yes/No* Questions. *Linguistics and Philosophy* 27: 609-658.
- Rooth, Mats. 1992. A theory of focus interpretation. *Natural Language Semantics* 1: 75-116.
- Ross, John. 1967. Constraints on Variables in Syntax. Ph.D. dissertation, MIT.
- Sportiche, Dominique. 1988. A theory of floating quantifiers and its corollaries for constituent structure. *Linguistic Inquiry* 19: 425–449.
- Stechow, Arnim von. 1990. Focusing and backgrounding operators. In *Discourse particles*, ed. Werner Abraham, 37-84. Amsterdam: Benjamins.
- Stechow, Arnim von. 2005. Semantisches und morphologisches Tempus: Zur temporalen Orientierung von Einstellungen und Modalen. *Neue Beiträge zur Germanistik* 4: 3-6.
- Stechow, Arnim von, and Zimmermann, Thomas Ede. 1984. Term answers and contextual change. *Linguistics* 22: 3-40.
- Ura, Hiroyuki. 1996. *Multiple Feature-Checking: A Theory of Grammatical Function Splitting*. Ph.D. dissertation, MIT.
- Waher, Hester. 1978. Die probleem van die bereik van die ontkenning met spesiale verwysing na Afrikaans. Ph.D. dissertation, University of Cape Town.
- Zeijlstra, Hedde. 2004. Sentential negation and Negative Concord. Ph.D. dissertation, University of Amsterdam.
- Zeijlstra, Hedde. 2008a. On the syntactic flexibility of formal features. In *The Limits of Syntactic Variation*, ed. Theresa Biberauer, 143-174. Amsterdam: Benjamins.

Zeijlstra, Hedde. 2008b. Negative Concord is syntactic agreement. Unpublished ms: Amsterdam University. Available on-line at: http://ling.auf.net/lingBuzz/000645
Zeijlstra, Hedde. 2008c. Modal Concord. In *Proceedings of SALT XVII*, ed. Masayuki Gibson and Tova Friedman, 317-332. Ithaca: CLS Publications.