Jespersen's Cycle = Minimize Structure + Feature Economy

Abstract

In the current paper, I outline a new account for Jespersen's Cycle, mainly concentrating on data from historical Low German, but embedding the proposal into a more general typology of adverbial negative markers and their diachronic connections. Building on proposals by CARDINALETTI & STARKE (1999) and GROSZ (2005;2007) and CARDINALETTI (2011) regarding the distribution of pronouns and modal particles, I propose to distinguish four classes of negative markers with different amounts of internal structure, representing different diachronic stages in the development of such markers. I argue that the NegP-hypothesis is (a) not necessary to account for the observed distribution, and (b) in fact makes empirically wrong predictions, which are avoided under the proposed NegP-free account.

Keywords

NegP-hypothesis, Jespersen's Cycle, Old Saxon, Middle Low German, third-factor principles

1. Overview

Since POLLOCK (1989), the structural locus of sentential negation within generative approaches to syntax has been assumed to be a functional projection, NegP. The NegP-hypothesis has also been very successful in accounts of the historical development of negation in various languages, more precisely, Jespersen's Cycle (JC) (after JESPERSEN 1917), as it offers head and specifier positions that can be targeted by new or old negative markers during their grammaticalization. However, while there is general agreement on the existence of NegP, there is much division about the exact number of NegPs, their syntactic position, and precise contribution to interpretation.

In the present paper, taking JC in historical Low German as the empirical point of departure, I will argue for a NegP-free approach to JC. The proposed account starts from the observation of similarities between the typology, distribution and grammaticalization clines of pronouns/agreement markers and adverbs/modal particles on the one hand, discussed in the literature, and the typology and diachronic stages of negation markers on the other. I argue that both the typology and the diachronic development of negative markers in languages using

adverbial negation particles can be accounted for by the interplay of two third-factor principles, Minimize Structure (CARDINALETTI & STARKE 1999) and Feature Economy (VAN GELDEREN 2011).[1]

2. Jespersen's Cycle in historical Low German

The empirical background of the current paper is the development of the expression of negation in the oldest attested stage of Low German, Old Saxon (Old Low German; c. 800-1250) (OS), and the subsequent stage, Middle Low German (c. 1250-1650) (MLG). Like all other West Germanic languages, Low German has undergone JC, the development in which a single expression of negation (stage I) is first reinforced by a new negation marker (stage II) and ultimately replaced by it (stage III), as well as changes in the interaction between sentential negation and (negative) indefinites in its scope related to that.

In OS, sentential negation is expressed by a pre-finite negative particle *ni/ne* positionally covarying with the finite verb. In (1) it is found clause-initially, in (2) clause-medially / in verb-second position, and in (3), clause-finally.

(1) *ni* bium ic [...] that barn godes (*Heliand* 915)
NEG am I … the child God.GEN
'I am not the child of God'

(2) thu *ni* uuest the maht godes the ik gifrummien scal (*Heliand* 3102-3)
you NEG know the power God.GEN REL I serve shall
'You do not know the power of God that I am to serve'

(3) Ic thes uuirdig *ne* bium [...] that thu an min hus cumes. (*Heliand* 2104-5)
I that.GEN worthy NEG am … that you to my house come
'I am not worthy that you come to my house'

OS is firmly in stage I of JC (BREITBARTH 2014), but there are a number of cases showing the emergence of an adverbial reinforcer *(io)uuiht* 'anything' or *niouuiht* 'nothing'. The bridging context seems to be a class of verbs allowing an optional extent argument or measure phrase, such as verbs meaning 'harm' or 'benefit', (4).

[1] At this point, I have nothing to say about languages using negative auxiliaries or other strategies.

(4) Ne ik thi geth *ni* deriu *(neo)uuiht* quad he[2] (*Heliand* 3892)
and.not I you also NEG damage nothing said he
'I will also not harm you (at all), he said.'

In the entire OS corpus (695 negative clauses), I found one occurrence of *niet* < *niouuiht* used as constituent (narrow focus) negation, in the 11th c. Gregorius glosses, (5).

(5) (illorum non solum animae. Sed caro quoque) (GG 63, 15–16)
thuo *niet* ekir iro selon neuen ok
then NEG only their soul but also
'then not only their soul, but also ...'

After a gap in attestation of at least 200 years, the expression of negation in MLG[3] had already reached the transition from stage II to stage III of JC; the former pre-finite negation particle, now weakened to *ne/en*, is increasingly optional and by the time the MLG is replaced by Early New High German as the written language in the area around the middle of the 16th century, it has all but disappeared. The standard, i.e., neutral and productive, negation marker is the adverbial *nicht* (6–7).

(6) We des *nicht en*-wete de lat=is sik berichten (Braunschweig 1349)
who this.GEN NEG NEG-know REL let=it REFL report
'Whoever doesn't know this should get informed about it'

(7) Iß he ohme *nicht* euenbordig, so mag he idt *nicht* theynn (Braunschweig 1553)
is he him NEG equal so may he it NEG tithe
'If he is not equal to him, he may not tithe it'

Present-day Low German has remained in stage III of JC; the adverbial marker, *nich*, continues to be used in much the same way as *nicht* was in MLG, (8), with *nich* occurring at the right edge of the middle field.

[2] In the older Monacensis (c. 850), it is *neouuiht* 'nothing', while in the Cottonianus (10th c.) manuscript, the form *uuiht* '(any)thing' is used.
[3] The corpus used is described in BREITBARTH (2014).

(8) … dat sik de Akadeemsche Senaat *nich* versammeln kunn.
… that REFL the academic senate NEG convene could
'… that the academic senate was not able to convene.'
(http://www.radiobremen.de/bremeneins/serien/plattdeutsche_nachrichten/plattnachrichten104_date-20150128.html, accessed 29/01/2015)

Before addressing the question of how the different stages are connected, diachronically, it is necessary to look at the interaction between the expression of negation and (morphologically) negative indefinites in the scope of negation at the various stages. This interaction provides important information regarding the interpretability of formally negative markers (ZEIJLSTRA 2004, PENKA 2011). OS for instance with its affix-like negative particle attaching to the finite verb might be expected to have negative concord (NC) (cf. ROWLETT's 1998 *Jespersen's Generalization*, after observations in JESPERSEN 1917). Contrary to what one might expect, however, also given the typological overview in ZEIJLSTRA (2004), OS NC is not very frequently attested at all in the two largest surviving texts, the *Heliand* epos (c. 830 CE) and the *Genesis* fragments (c. 840 CE). It does not occur in the *Genesis* at all (9a), and only in c. 20% of the possible cases in the *Heliand*, (9b). Only in the minor texts (10th and 11th centuries CE), all attested indefinites in the scope of negation show concord with the negative marker, but there are only five such occurrences, cf. Table 1.[4]

Table 1: Expression of negation and indefinites in the scope of negation in OS[5]

	ni	*ni* alone	NMI	NFI	Total negative clauses
Heliand	617	582	35	143	620
Genesis	37	37	0	12	37
Minor texts[6]	37	32	5	0	38

[4] The *Heliand* is by far the largest body of Old Low German text with c.6,000 lines of alliterative verse (c. 80% of the extant material; Sanders 2000:1277). The *Genesis* comprises c.335 lines of alliterative verse. The minor texts (incl. a tax list, a number of glosses, fragmentary psalm translations(from Latin) and commentaries, two short texts on scrolls, a part of a translation (from Latin) of a Homily by Bede, a confession, Baptismal Vows, blessings, and short inscriptions) are of varying length, ranging from a few words to a few pages each.
[5] Abbreviations: NMI = n-marked, i.e. morphologically negative, indefinite, NFI = n-free indefinite.
[6] From the minor texts, only finite negative clauses were considered. That is that glosses were only taken into account if they formed a full finite clause.

Totals	695

On top of that, NC only seems to take the shape of negative doubling—the co-occurrence of the marker of sentential negation with a negative indefinite—in OS; where more than one indefinite occurs in the scope of negation, at most one of them is morphologically negative, (9c–d).

(9) a. that is *ênig* seg *ni* ginas
that it.GEN any man NEG was.saved
'that no one was was saved from it' (*Genesis* 322)

b. that thar *nenig* gumono *ni* ginas
that there no man NEG was.saved
'that no one was saved there' (*Heliand*, 4369-70)

c. *N*-is thes tueho *enig* gumono *nigienumu*
NEG-is this.GEN.SG.N. doubt any men.GEN.PL none.DAT.PL
'There is no doubt about in any of the men' (*Heliand* 3190-1)

d. it *ni* mag iu te *enigoro* frumu huuergin uuerdan te *enigumu* uuilleon.
it NEG can you to any benefit at.all redound to any happiness
'It is not able to do you any good at all, nor bring you any happiness'
(*Heliand* 1854-5)

MLG, on the other hand, had extensive NC. Like other languages undergoing JC (cf. HASPELMATH 1997: 203), negative doubling in MLG is restricted to morphologically negative indefinites co-occurring with the old pre-finite particle *ne/en* (in 476 out of 1269 cases[7]), they do not co-occur with the new adverbial negator *nicht*. Negative spread—marking negation on more than one or all indefinites in the scope of negation (DEN BESTEN 1986)—is the norm, (10) (in 98 out of 107 cases of more than one indefinite per clause).

(10) Und we *en*-willet noch *en*-schullet *nummermer neyn* slot darin buwen
and we NEG-want nor NEG-shall never.more no castle there.in build

[7] Besides, there are 787 cases of n-marked indefinites without negative doubling, marking the loss of the preverbal particle from negative clauses with indefinites in the scope of negation.

'And we neither intend nor shall build any castle in it.' (Uelzen 1397)

The standard view concerning how the stages of JC in languages like historical Low German are connected is that there is a functional projection NegP, typically taking *v*P as its complement, which provides head and specifier positions that the weakening and strengthening negative particles can target during their grammaticalization.

3. NegP approaches to Jespersen's cycle

POLLOCK (1989), comparing English and French, first proposed to split IP into a T(ense)P(hrase), a Neg(ation)P(hrase) and an Agr(eement)P(hrase), (11)

(11) [$_{TP}$ [$_{NegP}$ [$_{AgrP}$ [$_{VP}$]]]

While AgrPs were soon shown to be empirically inadequate (IATRIDOU 1990, JULIEN 2002) and are also theoretically no longer available, as functional elements without semantic import are no longer considered able to project (CHOMSKY 1995: 240), the same is not applicable to NegP, as the logical negation operator (however lexicalized in a language) is clearly interpretable in that it has an effect on the propositional meaning of the clause.

Today, three main types of approaches can be distinguished: (i) There is a single NegP in negative clauses in all languages, reflecting the presence of a logical (possibly covert) negation operator (e.g. ROBERTS & ROUSSOU 2003, VAN GELDEREN 2008; 2011, ROBERTS 2007, WILLIS 2012). (ii) There is a single NegP only in those languages in which there are overtly marked syntactic dependencies (i.e., NC), that is, the presence of NegP may vary diachronically (e.g. ZEIJLSTRA 2004, WALLAGE 2005). (iii) There are several NegPs in each language, accommodating the typological and diachronic variation concerning the position of negative particles with respect to other material in the clause such as verbs, adverbs and other operators (e.g. ZANUTTINI 1997, POLETTO 2008), though only one of these positions carries interpretable negation features.

Only proponents of the first kind of approach really seem to have proposed any diachronic model, instead of —as is more common— proposing analyses of separate synchronic stages of JC without explicating the processes that connect these stages. Cartographic approaches (particularly POLETTO 2008) suggest a connection between the

diachronic source of a negator and its position in the clausal hierarchy, but do not acknowledge a diachronic connection *between* the different assumed NegPs (not just between one etymological source and one NegP, e.g. MinimizerP). Under such an approach, it is unclear what triggers the "activation" of a given NegP at a given diachronic stage, and at least one false prediction seems to be made: Several new negators should be able to enter a language / be grammaticalized at the same time, targeting different NegPs.

According to those NegP approaches which have offered accounts of the diachronic processes creating and affecting negative markers, the head of NegP is typically assumed to have an interpretable/valued negation or polarity feature at stage I of JC.[8] The future adverbial negator (for instance, Old French *pas*) initially has no negation or polarity features at this stage, but is simply a negative polarity item or has an 'uninterpretable operator feature' that needs to be licensed by a suitable operator (for the development of French *pas* cf. ROBERTS 2007:72; 79–80). Later, this adverbial element is integrated into the negative system and acquires an uninterpretable/unvalued negation/polarity feature, (12a). At stage II of JC, this licensing relationship is reversed by another reanalysis, which leaves the preverbal marker with the uninterpretable/unvalued negation/polarity feature and the new adverbial element with the interpretable feature licensing it, (12b).

(12) a. [$_{\text{NegP}}$ [$_{\text{AdvP}}$ *pas* ~~uPOL[NEG]~~] [$_{\text{Neg'}}$ [$_{\text{Neg}}$ *ne* POL[NEG]]] →

b. [$_{\text{NegP}}$ [$_{\text{AdvP}}$ *pas* POL[NEG]] [$_{\text{Neg'}}$ [$_{\text{Neg}}$ *ne* ~~uPOL[NEG]~~]]

(after WILLIS 2012: 96)

Once this step has been completed, the new interpretable negation marker may be considered sufficient to express sentential negation, leading to the loss of the old preverbal marker. According to ROBERTS & ROUSSOU (2003) and WILLIS (2012), these reanalyses affect both the head and specifier positions of NegP, that is, the material filling these positions as well as whether head or specifier carry the interpretable features.

Under such approaches, the question is what triggers and what restricts such changes. A concrete proposal has been made by VAN GELDEREN (2008; 2011). To account for cyclical change in language including the negative cycle (JC) and grammaticalization, she makes extensive use of so-called third-factor principles (CHOMSKY 2005), in particular Feature

[8] Approaches vary as to which model of feature checking or valuation is assumed.

Economy (FE), (13), supplementing and partially replacing the older Head Preference (HPP), (14), and Late Merge Principles (LMP), (15).

(13) *Feature Economy:*

Minimize the semantic and interpretable features in the derivation, for example:

Adjunct/argument	Specifier (of NegP)	Head (of NegP)	affix
semantic	> [iNEG]	> [uNEG]	> —

(VAN GELDEREN 2011:299)

(14) *Head Preference Principle:*

Be a head, rather than a phrase. (VAN GELDEREN 2011:298)

(15) *Late Merge Principle:*

Merge as late as possible. (VAN GELDEREN 2011:298)

Under VAN GELDEREN's proposal, the LMP accounts for the reanalysis of former arguments and adjuncts as SpecNegP, while the HPP is made responsible for the reanalysis of a specifier as a head, for instance within NegP. FE, finally, connects the changes governed by the LMP and the HPP and introduces a trigger for the lexical renewal typical of cyclical changes by postulating that uninterpretable features are more economical than interpretable ones. Given that uninterpretable features always need to be licensed by interpretable ones to prevent a derivation from crashing, this causes the grammaticalization of new interpretable material. (16) is a representation of JC based on VAN GELDEREN (2011:304; her Fig. 8.4).[9]

(16) a. $[_{NegP}$ __ $[_{Neg'}$ Neg^{o}[uNEG] $[_{VP}$ XP[NEG]]]] (by LMP)

b. $[_{NegP}$ XP[NEG] $[_{Neg'}$ Neg^{o}[uNEG] $[_{VP}$]]] → (by FE)
$[_{NegP}$ XP[iNEG] $[_{Neg'}$ Neg^{o} [Ø] $[_{VP}$]]]

c. $[_{NegP}$ __ $[_{Neg'}$ Neg^{o} [iNEG] $[_{VP}$]]] (by HPP)

d. $[_{NegP}$ __ $[_{Neg'}$ Neg^{o} [iNEG] $[_{VP}$]]] → (by FE)
$[_{NegP}$ __ $[_{Neg'}$ Neg^{o} [uNEG] $[_{VP}$]]]

[9] '[NEG]' in (16) symbolizes semantic negativity, cf. (13).

This approach aligns the stages of JC with observations regarding the feature content and phrase structural status of negative markers from a typological point of view (e.g., ZEIJLSTRA 2004: 175). In brief, the observation is that there are essentially three types of negative markers, (i) head negators with an interpretable negation feature (in non-strict NC languages according to ZEIJLSTRA's 2004 typology)[10], (ii) head negators with an uninterpretable negation feature (in strict NC languages), and (iii) phrasal negators with an interpretable negation feature.[11]

Regarding the triggers of such changes, VAN GELDEREN explicitly takes NC to be indicative of the imminent renewal of the expression of sentential negation.[12] This is because the 'weakening' of the original negative marker that JESPERSEN (1917) takes to be the first step in the renewal, is seen as a change in the interpretability of the [NEG] feature of the negative marker, with [uNEG] being weaker than [iNEG], because a [uNEG] negator needs to rely on an [iNEG] (or semantically negative) licenser. The renewal of negative markers is therefore explicitly seen as inextricably intertwined with the availability of NC: if a language has NC, it means that its negator is a [uNEG] head requiring strengthening, which the concording element is thought to provide, and is regarded as being about to embark on JC, cf. VAN GELDEREN's (2011: 337–338) brief allusion to the triggers of JC.[13]

This is problematic, however. Although there may be [iNEG] or semantically negative indefinites, these are not typically the kind of indefinites involved in NC —more common are [uNEG] *n-words*.[14] A comparison of the historical development of indefinites across

[10] The terminology is due to GIANNAKIDOU (1998). Non-strict NC languages are languages in which a concording indefinite cannot co-occur with the marker of sentential negation if it precede the negative marker (but must co-occur with it when it follows), while concording indefinites have to co-occur with the negative particle regardless of their position in strict NC languages.

[11] ZEIJLSTRA (2004) further distinguishes between two types of languages with phrasal negators, those in which the negator bears an [iNEG] feature (a formal syntactic feature), and enters an Agree relation with bearers of a [uNEG] feature, e.g. a head negation particle or concording indefinites (n-words), and those in which the negator is semantically negative. I reject such a distinction, as an element bearing an [iNEG] feature should be indistinguishable from a "semantic" negator at LF.

[12] This reflects the common claim that there is a connection between the phrase-structural status of a negative marker (head or phrase) and the availability of negative concord (cf. also ROWLETT 1998, who calls it *Jespersen's Generalization* after observations by JESPERSEN 1917, or ZEIJLSTRA 2004). See WALLAGE (2005) and BREITBARTH (2013) for arguments against this generalization.

[13] Note that ZEIJLSTRA (2004) is less strict in this respect, he acknowledges that there are NC languages with [iNEG] phrasal negators. See WALLAGE (2005) and BREITBARTH (2013) for arguments against a direct dependency between JC and NC.

[14] The term *n-word* is used here to denote semantically non-negative indefinites in the scope of negation that can co-occur with each other or with a sentential negator, but which can also express negation alone in elliptical answers:

(i) An expression α is an n-word iff:

languages suggests that the latter often arise from NPIs (and potentially formerly positive elements), which become increasingly restricted to the scope of negation, and typically stop at acquiring a [uNEG] feature (that is, their strong NPI-hood is reanalysed as a checking requirement with an [iNEG] negation operator). Developing an [iNEG] feature is extremely rare, and furthermore unexpected under FE; [iNEG]-indefinites typically arise through univerbation with an [iNEG] negator (cf. HASPELMATH 1997). Besides, if indefinites in NC languages were uniformly strengthening a [uNEG] negator, one could not account (a) for the distinction between strict and non-strict NC nor (b) for the fact that negative doubling (of any kind) most commonly correlates with negative spread (the co-occurrence of [iNEG] indefinites would lead to double logical negation). Furthermore, the new negators arising through JC are not necessarily former concordant negative indefinites, a prediction that VAN GELDEREN's proposal seems to make. Finally, the impression arises that syntactic change occurs in a deterministic fashion: weakening under FE is inevitable, triggering, also inevitably, cyclic renewal, making use of the LMP and HPP. However, as variously observed in the literature on JC, languages can be remarkably stable, and remain in a certain stage for a long time, certainly a stage with an emphatic adverbial emphasizer preceding the actual initiation of JC (see e.g. POSNER 1985, BREITBARTH et al. 2013).

Finally, a general problem for accounts of JC assuming a changing occupation of the specifier and head positions of NegP is the fact that new fillers of SpecNegP either invariably follow the old Neg^{o}[15], or are compatible with an analysis as adjoined to *v*P, raising questions for language acquisition: Why should a functional projection be postulated if the PLD does not unambigiously indicate its position —unless one assumes functional projections and their positions are not acquired, but hard-wired into UG? I would like to question whether the assumption of a NegP is indeed necessary to capture the data. In the next section, I will outline a NegP-free account of JC.

4. Jespersen's Cycle without NegP

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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. (GIANNAKIDOU 2006: 328)

[15] Cf. HIRSCHBÜHLER & LABELLE'S (1993) criticism of POLLOCK's (1989) analysis of French *ne* and *pas* as Neg^{o} and SpecNegP, respectively, arguing that the surface order *ne pas* must also be the base order.

4.1 Penka's NegP-free approach to NC and negation typology

Several authors have opposed the NegP-hypothesis, whether only for English (e.g., ERNST 1992) or universally (PENKA 2011). PENKA (2011) argues that sentential negation interacts with other scope-taking material in the clause and proposes to treat negation as an operator OP¬ of type < *t, t* >, requiring an argument of type < *t* >, that is, a constituent denoting a truth value, returning the inverse truth value to the input truth value.

(17) *not* is of type < *t, t* >

$$[[\text{not}]] = \lambda t \in D_t. \begin{cases} 1 \text{ if } t = 0 \\ 0 \text{ if } t = 1 \end{cases}$$ (PENKA 2011:10)

According to PENKA, the smallest projection of type < *t* > is *v*P.[16] This approach attributes the ordering restrictions between projections to independently holding semantic requirements, avoiding their doubling in a fixed hierarchy of functional projections in the syntax.

Under PENKA's approach (as under ZEIJLSTRA's), OP¬ can be covert as long as overt material in the sentence indicates its presence, for instance in (constructions in) languages where negative markers appear in surface positions that do not coincide with the semantic scope position, or in case of concording (morphologically, but not semantically) negative indefinites in NC languages (PENKA 2011:51).[17]

As it stands, however, PENKA'S approach can only account for two of the three types of negation markers predicted by VAN GELDEREN (2011) or ZEIJLSTRA (2004), viz. (i) languages with a weak [uNEG] negative marker or affix on the finite verb and a covert [iNEG] OP¬ (e.g. Czech) in SpecNegP and (ii) languages with an [iNEG] phrasal/adverbial negator, which is in SpecNegP in NC-languages (e.g. Bavarian), or adjoined to *v*P in non-NC languages (e.g. Standard German), according to ZEIJLSTRA's analysis. In the first type of language, a NegP is not needed under Penka's approach, according to which [uNEG] features are always licensed under c-command by an [iNEG] licenser. A simple adjunction of the covert OP¬ to *v*P (or higher) as proposed by PENKA would suffice to account for such languages; the [iNEG] operator would c-command the [uNEG] feature on the verb just as it

[16] Other positions are not excluded, however (cf. PENKA 2011: 61).
[17] Cf. LADUSAW's (1992) distinction between expressing and licensing the expression of negation: "[The negation operator] need not be part of a lexical meaning: it may be constructional, in the sense that it is associated with some structural feature not necessarily visible in the clause." (LADUSAW 1992:251–252)

would under ZEIJLSTRA'S proposal involving NegP. Also languages of the second type can be accounted for without NegP, as under PENKA'S approach, the overt adverbial [iNEG] element can be adjoined to any category of type < *t* >, licensing any [uNEG] features in its scope.

However, there is a third type of language. If the negative marker is an [iNEG] head, as PENKA, following ZEIJLSTRA, assumes for non-strict NC languages like Italian, it must attach to the clausal spine, because it, carrying an [iNEG] feature, overtly realises the negation operator, which under PENKA's analysis (19) needs to take a type < t > complement. Though Penka argues against the NegP-hypothesis, an [iNEG] head taking a *v*P or TP complement is de facto hard to distinguish from the head of a NegP. Assuming instead a covert [iNEG] adjoining to *v*P or TP would imply that the overt sentential negator be [uNEG], which would obliterate the distinction between strict and non-strict NC languages.

4.2 Jespersen's Cycle (and negation typology) = Minimize Structure + Feature Economy

As is the case with other instances of grammaticalization, the development of negation particles under JC follows an ordered chain of stages, a so-called cline, each representing a higher degree of grammaticalization. In a first step, a nominal minimizer, generalizer or (negative) indefinite is reanalysed as a negative polarity adverb, and from there as a new (adverbial) negative marker. Such phrasal negative markers can then go on to become clitics and ultimately affixes, (18).

(18) argument > adverbial emphasizer > phrasal negator > clitic > affix > ∅

We have seen above that the affix-like negation particle of OS becomes reinforced by an adverbial emphasiser arising from a former argument, and that by MLG, this reinforcing element had become a neutral phrasal negation marker.[18] The similarity between the cline that negation particles passing through JC follow and the development of, for instance, agreement morphology (GIVÓN 1976, VAN GELDEREN 2011), (19), is striking.

[18] It is not (as VAN GELDEREN's approach predicts) inevitable that an affixal negator become reinforced in this way, as there are NC languages (like Czech) with such negators which never seem to embark onto Jespersen's Cycle.

(19) noun/demonstrative > pronoun > clitic > affix > ∅

Under generative approaches to grammaticalization (ROBERTS & ROUSSOU 2003, VAN GELDEREN 2011, KIPARSKY 2012), the strict directionality from less grammatical to more grammatical, from less abstract to more abstract, and from independent to increasingly dependent is a consequence of universal properties of language, namely the hierarchical (scopal) order of functional categories, combined with so-called third factors (CHOMSKY 2005) such as economy principles. The functional hierarchy restricts the possible pathways, while the economy principles effect the 'upwards' character of grammaticalization (ROBERTS & ROUSSOU 2003) and the formal cline from full phrase via clitic to affix and eventually zero (VAN GELDEREN 2011). Under a NegP-free approach to the syntax of negation and to JC, the question arises as to which position in the hierarchy newly grammaticalizing negative markers should aim for, if a designated structural position for sentential negation markers is absent. I propose to look at another parallelism with pronouns here.

CARDINALETTI & STARKE (1999) observe that many languages have synonymous pairs or even triplets of pronouns, which are differentiated by contrasting syntactic distributions. The full or 'strong' class is syntactically independent, its members can be coordinated, modified, contrastively stressed, and occur in sentence-initial position, like *elle* 'she' in (20a–e). A second, deficient or 'weak', class on the other hand does not have these three properties and is restricted to the middle field. The third class, clitics, are finally also prosodically dependent on a host, like *la* (*l'*) in (20a).

(20) French

a. Je □*l'*ai aidé (**elle*)

b. Je ∗LA ai aidé (□ ELLE)
I HER have helped HER

c. Je ∗□la ai aidé (□elle) (□ = ostension)
I her have helped her

d. Je ∗la et l'autre ai aidé (□ elle et l'autre)
I her and the other have helped her and the other

e. Je seulement ∗la ai aidé (seulement □ elle)
I only her have helped only her

(CARDINALETTI & STARKE 1999:152)

Based on data from various Romance and Germanic languages, CARDINALETTI & STARKE (1999) argue that the three classes of pronouns —strong, weak, and clitic— are distinguished by the amount of internal structure they have. Weak pronouns realise less structure than strong pronouns, and clitics are even more structurally impoverished than weak pronouns. Similar to sentential syntax, CARDINALETTI & STARKE postulate three layers of functional structure for lexical items, C, Σ, and I. The C-layer encodes referentiality and case on pronouns, the Σ-layer prosodic information, and the I layer φ-features. Therefore, weak pronouns, lacking the C-layer, can only occur in positions where, for example, their case information can be recovered; they suggest the specifier of agreement projections. Clitics, additionally lacking prosodic information, have to attach to a functional head able to license them prosodically. Furthermore, CARDINALETTI & STARKE (1999: 198) formulate the economy principle *Minimize Structure* (MS), (21), requiring the use of the most structurally reduced element possible, that is, unless it leads to ungrammaticality (='up to crash').

(21) *Economy of Representations: Minimize Structure.*
Only if the smaller structure is independently ruled out, is the bigger alternative possible. (CARDINALETTI & STARKE 1999:47)

Ungrammaticality ensues if the omitted functional structure cannot be recovered. This derives the characteristic distributional and prosodic restrictions on strong, weak, and clitic pronouns exemplified in (20). In (20a), for instance, the stronger form *elle* is ruled out, as the more deficient form *la* is available.

CARDINALETTI (2011), following a proposal for German by GROSZ (2007), extends this analysis of the three classes of pronouns to modal particles in Italian and German, arguing that they are in fact deficient adverbs, lacking the highest structural layer, which accounts for their distributional restrictions. CARDINALETTI shows that just, like weak pronouns, modal particles cannot be coordinated (22a) or modified (22b); they are positionally fixed, (23), but they are still prosodically independent.

(22) a. *gehen Sie *doch* und *mal* zum Arzt.
go you MP and MP to.the doctor
'Just go to the doctor.' (CARDINALETTI 2011:495)

c. gehen Sie (sehr) *ruhig* zum Arzt!
go you very quietly/*MP to.the doctor
'Go very quietly to the doctor.' (manner reading only)
'*Go ahead, just go to the doctor!'

(23) a. das Auto ist klein: billige Autos sind *eben* so.
the car is small cheap cars are MP so
'The car is small: cheap cars are indeed like that.'

b. *das Auto ist klein: *eben* sind billige Autos so.
the car is small MP are cheap cars so (CARDINALETTI 2011:495)

Further support for her proposal comes from the observation that some modal particles have arguably progressed further in their grammaticalization[19], such as *dn/n* < *denn* 'than' (e.g. GROSZ 2005; 2007). As seen in (24), *dn/n* is prosodically dependent, and behaves like a C-clitic, appearing in the Wackernagel position. 'Weak' *denn*, like the other modal particles, occurs in a lower position, within the middle field.

(24) was schenkst (*dn*)/(**denn*) du ihr (**dn*)/(*denn*) zum Geburtstag?
what give MP you to-her MP for-the birthday
'What are you going to give her for her birthday?'
(adapted from CARDINALETTI 2011: 501)

In parallel to the three classes of pronouns identified by CARDINALETTI & STARKE (1999), CARDINALETTI (2011) argues that adverbs can be structurally deficient, too. Like weak pronouns, weak adverbs, that is, modal particles, need to adjoin to a functional projection that can recover their missing features. Like clitic pronouns, clitic adverbs need to adjoin to a functional head able to license them prosodically.

I propose to extend this analysis to the cross-linguistic typology and grammaticalization cline of negative markers. That is, I argue that there are different classes of negative markers distinguished by the amount of internal structure they have.[20] MS can be

[19] For arguments that (German) modal particles historically derive from full adverbs by grammaticalization see e.g. MOLNÁR (2002).

[20] One of the reviewers points out that one difference between pronouns and modal particles is that pronouns all have the same function regardless of their "size", while modal particles, while historically derived from adverbs, only share their modificational function, but develop rather different functions. Negative particles would

understood diachronically, as an effect of grammaticalization (*contra* CARDINALETTI 2011, but in line with GROSZ 2007). This predicts that there may be a period in which older (less grammaticalized) and newer (more grammaticalized) negative markers are simultaneously present in a language. In research on grammaticalization, this is called divergence (HOPPER 1991: 22). This is indeed borne out. As is the case for pronouns, of which strong and weak forms may be homophonous in a language, for instance French *elle* (I_LP) and *ELLE* (C_LP), some languages have homonymous forms of negative markers with different amounts of internal structure under the present approach. This offers an account for the apparent 'dual' status negation markers seem to have in some languages, for instance English or Norwegian, in terms of partially homophonous forms with different degrees of structural deficiency.

English has in fact three 'sizes' of negative markers, which show a different distribution. While English *n't* (25a) has been argued to be an inflectional affix on finite auxiliaries by ZWICKY & PULLUM (1983), the long-standing controversy about whether unreduced *not* is a head or a phrase can be settled by assuming that when used to express neutral sentential negation (25b), it is a deficient form.[21]

(25) a. Has-*n't* John read the book?
b. Has John *not* read the book? (CHRISTENSEN 2003)

Besides that, there is a stressed contrastive form *NOT*, which is modifiable (cf. *absolutely not*), and which can therefore be analysed as a strong adverb, distinguished from the deficient element by its distribution. This strong form is the one used in focus and constituent negation. Evidence comes from the difference in LF-scope (and hence, by compositionality, underlying syntactic position) between neutral and contrastive *not* (cf. CORMACK & SMITH 2002). Neutral *not* can only scope above possibility modals, and can be reduced to *n't*. Contrastive *NOT* can

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therefore be more similar to pronouns than to adverbs/modal particles. Two remarks on this. First, MS can be understood diachronically, as is done in the present article (see main text), i.e., the different sizes represent different historical stages. Second, there are observations in the literature pointing to the fact that clitic negative particles, in cases where they are not entirely replaced by new strong > weak ones, tend to undergo exaptation. That is, they are reanalysed and assume a new function, probably because speakers want to make sense of the continued presence of two negative particles. This has for instance happened in (West) Flemish (BREITBARTH & HAEGEMAN 2014), where *en* has been reanalysed as a discourse particle expressing polarity emphasis and in Middle Low German / Middle Dutch, where *ne/en* used on its own fed into the development of a new connector introducing exceptive clauses (BREITBARTH 2014b), which in the case of Dutch led to the grammaticalisation of a new subordinating complementizer, complete with clause-final verb placement, arose, viz. *tenzij* 'unless' < *'t en zij* 'it NEG be').

[21] Something will have to be said about *do*-support, which also occurs with (weak) *not* and (strong) *NOT*. I restrict myself here to pointing out the general typology of negative markers.

scope above as well as below possibility modals, and cannot be reduced to *n't*, (26). While the reducible 'neutral' *not* expresses sentential negation, as shown by the positive question tag (cf. KLIMA 1964) in (26a), the strong narrow focus negator NOT in (26b) does not have sentential scope, as the negative question tag indicates.

(26) a. Edwin ca*n't*/can*not* climb trees, *can he*? neg > mod
'Edwin is not permitted/able to climb trees'

b. Edwin can *NOT* climb trees, *can't he*? mod > neg
'Edwin is permitted not to climb trees'

(after CORMACK & SMITH 2002:137)

In sum, English has an affix *n't*, a weak form *not* (CORMACK & SMITH's Pol[NEG]), and a homophonous strong form *NOT* (CORMACK & SMITH's Adv[NEG]).

Likewise, Norwegian *ikke* has what appear to be affixal or clitic realizations, besides more phrasal ones. JOHANNESSEN (1997), who takes this to be evidence of *ikke*'s general head status, signals that *ikke* productively assimilates with mostly monosyllablic verbs in verb-second clauses where the finite verb precedes the negator, leading to sometimes far-reaching phonological restructuring, (27).

(27) a. *har ikke* > *hakke* 'has not'
b. *går ikke* > *gåkke* 'goes not'
c. *syr ikke* > *sykke* 'sews not' (from JOHANNESSEN 1997:3)

The strong form *ikke* can be contrastively stressed and modified, as in English, (28a), and be put in clause-initial position in V2-contexts if strong contrastive focus is involved, (28b). At the same time, it can also arguably be a weak adverb in neutral contexts.

(28) a. Jeg aner *slettes ikke* hva du mener
I know absolutely NEG what you mean
'I absolutely don't know what you mean.' (JOHANNESSEN 1997:4)

b. *Ikke* har han problemer med alkoholen heller.
NEG has he problems with alcohol.the either
'Neither has he problems with alcohol.' (CHRISTENSEN 2003)

The facts for phrasal or adverbial negators like German *nicht* or Dutch *niet* are analogous to the Norwegian ones; these negators are ambiguous between 'strong' and 'weak' adverbs in the proposed classification. The strong forms can be contrastively stressed and modified, (29), while in neutral negative clauses, the weak form is used, which is restricted to a low middle field position at the edge of *v*P.

(29) German

a. Das stimmt *ganz und gar nicht*
that adds.up whole and wholly not
'That doesn't add up at all.'

b. Claudia hat A, B und C getan. *NICHT* hat sie D getan.
Claudia has A B and C done not has she D done
'Claudia has done A, B, and C. Contrary to that, she has NOT done D.'

(BREITBARTH 2014: 135)

If English *n't*, Norwegian *-kke*, or, as ZEIJLSTRA (2004) argues, Czech *ni-*, are affixal negators, and if neutral *not* (English), *niet* (Dutch) and *nicht* (German) are weak negators, and their contrastive counterparts strong negators, are there also 'clitic' negators to complete the typology? Recall that the only problem for PENKA'S NegP-free proposal is the existence of preverbal [iNEG] head negators in a number of Romance languages. I propose to analyse these negators as clitics on the finite verb in T.[22] In many Italian dialects, they form clusters with pronominal clitics, like *-l* and *me* in (30).

(30) Venetian
No=l me piaze
NEG=it me likes
'I do not like it' (POLETTO 2008: 66)

[22] This may be a simplification, cf. ZANUTTINI's (1997) distinction of two positions for clitic negators depending on their distribution with respect to other clitics. Also, clitic negators may be clitic on other functional projections than T in other languages, for instance C.

The assumption that T prosodically licenses clitic negators in some Romance languages lends support, for instance, to the assumption that (true) imperatives lack T (ZANUTTINI 1996). If such clitic negators are dependent on T for licensing, the absence of true (morphological) imperatives in negative clauses in languages like Spanish or Italian, (31), and the requirement to use a surrogate form (e.g. subjunctive or infinitive) (ZANUTTINI 1996, ZEIJLSTRA 2004) fall out naturally.

(32) (∗*Non*) telefona!
NEG call.IMP
'Don't call!' (after ZANUTTINI 1996:188)

The question arises what information should be encoded in the structural shells of negative markers stripped by MS, and how it is recovered. I propose that the 'C'-layer corresponds to focus. A 'full' or strong negator equipped with it can be used to express narrow focus of negation, a 'weak' negator lacking it needs to adjoin to *v*P, the domain of neutral wide information-structural focus; it can thus not express a different focus itself. The 'Σ'-layer, just as for pronominal elements and modal particles, encodes prosodic information. A clitic negator, lacking this layer, needs to attach to a functional head in order to recover this information. It was just argued that this head is T. Finally, the 'I'-layer houses an interpretable formal negation feature. An affixal negator, lacking this layer, may be [uNEG], but may also eventually lose a formal negation feature under FE. Table 3 sums up the properties of the proposed grammaticalization stages of negative markers.

neg marker	size	distribution	formal feature
strong	$C_{Adv}P$	free, constituent neg	[iNEG]
weak	$\Sigma_{Adv}P$	adjoined to *v*P	[iNEG]
clitic	$I_{Adv}P$	clitic (e.g. on T)	[iNEG] > [uNEG]
affix	AdvP	affix on verb	[uNEG] > Ø

Table 3: The four classes of negative markers and their properties

4.3 Back to Jespersen's Cycle in historical Low German

We are now in a position to take a new look at the development of the expression of negation in historical Low German. As negative spread seems to be absent in OS (9c–d), we can postulate that the negative marker *ni/ne* immediately preceding the finite verb had an [uNEG] feature, while negative indefinites were [iNEG] in OS (and hence could not co-occur with each other). Given that the preverbal marker covaries positionally with the finite verb, I would like to propose that it is a [uNEG] affix on the finite verb. (34) is the structural representation of (the relevant parts of) (2).

(34) [$_{v\text{P}}$ OP¬[iNEG] [$_{v\text{P}}$ [$_{\text{DP}}$ thu] [$_{v'}$ … [$_{v}$ *ni*[uNEG]-bist]]]] (*Heliand* 919)

As we have seen above, the new negative reinforcer is recruited from a (negative) indefinite argument, (*n)iouuiht* 'any-/nothing', (35a), which can be used as an optional extent argument with certain predicates (35b), and from there be reanalysed as a strong adverb, which can be used in narrow scope and focus negation, (36).

(35) a. [$_{v\text{P}}$ [$_{\text{VP}}$ [$_{\text{DP}}$ *niouuiht*([iNEG])] *imu biholan*] [$_{v}$ *ni*[uNEG]-*is*]] (*Heliand* 1577–8)

b. [$_{v\text{P}}$ [$_{v\text{P}}$ *ik* [$_{\text{VP}}$ *thi* (t_i) t_V] [$_{v}$ *ni*[uNEG]-*deriu*$_V$]] [$_{\text{DP/CAdvP}}$ *neouuiht*[iNEG]]$_{(i)}$] (*Heliand* 4865)

c. [$_{\text{DP}}$ [$_{\text{CAdvP}}$ *niet*[iNEG]] [$_{\text{DP}}$ *ekir io selon*]] (GG 63, 15–16)

d. [$_{v\text{P}}$ [$_{\text{CAdvP}}$ *nicht*[iNEG]] [$_{v\text{P}}$ …]]

Once established as an adverbial negator (C_{Adv}P), *niouuiht* > *nicht* becomes a weak adverbial negator adjoined to *v*P, (36). During the MLG period, the former affixal marker on the finite verb is lost, after FE stripped it of any [uNEG] features.

(36) [$_{v\text{P}}$ [$_{\Sigma\text{AdvP}}$ *nicht* [iNEG] [$_{v\text{P}}$ … [$_{v}$ *en*[Ø]-wete]]] (Braunschweig 1349)

These stages are connected by an interplay between MS and FE. MS favours the insertion of more deficient forms where there is a choice between two available forms, that is, it requires the use the smallest synchronically available adverb —where possible— and the diachronic reduction of the size of an available adverb —where possible. FE requires the reduction of interpretable features ([iNEG]) to uninterpretable features ([uNEG]) to nothing (Ø) —again, where possible. This raises the question what determines the diachronic rise of a choice

between two forms. Given the role of inertia in language change (cf. KEENAN 2002, LONGOBARDI 2001), other (and robust) triggers are required to set off structural change. That is to say that MS does not create more deficient forms to be used by itself. Neither can FE, under inertia, apply without being triggered. Clearly, MS is also not designed to account for the cyclic renewal of the expression of negation with new phrasal markers. The grammaticalization of new negation markers is a complex interplay of semantic and syntactic properties of input items, lexical bridging contexts, and the loss of original syntactic and semantic distributional restrictions (BREITBARTH et al. 2013).

With respect to JC in historical Low German, I propose that the rise of [iNEG] $C_{Adv}P$ *niouuiht* in OS was triggered by the presence of [iNEG] negative indefinites, in fact, one such an indefinite was reanalysed as a negation strengthener ('at all' > 'not') exploiting the pragmatic strategy of reinterpreting a low endpoint on a pragmatic scale ('anything'/ 'nothing') in a bridging context where both the argumental and the adverbial reading are possible —with predicates allowing an optional extent argument (BREITBARTH et al. 2013). This new adverbial marker lost its C-layer, turning it into a 'weak' $\Sigma_{Adv}P$ negator adjoined to *v*P under MS, at the point when new adverbial emphasizers were established (e.g. MLG *mit nichte* 'not at all' lit. 'with nothing'). At the same time, the former prefinite negation particle, *ni* > *ne/en*, lost its [uNEG] feature under FE. Table 2 gives an overview over the developments in historical Low German:

pre-OS:	$I_{Adv}P$ [iNEG] *ni* + NPI indefinites
OS-1 (Hel,Gen):	AdvP [uNEG] *ni* + NPI / [iNEG,iQ] indefinites
OS-2 (minor texts):	AdvP [uNEG] *ni* + $C_{Adv}P$ [iNEG] *niouuiht* + [iNEG,iQ] > [uNEG,uQ] indefinites
MLG:	AdvP [uNEG] > Ø *ne/en* + $\Sigma_{Adv}P$ [iNEG] nicht + [uNEG,uQ] indefinites

Table 2: The development of negation and NC in historical Low German

5. *No one*'s problem

One of the empirical facts that has often be cited in favour of the NegP-hypothesis is the observation that negative indefinites in many languages have to evacuate their base position

inside VP and move to a position that has in the literature been identified as SpecNegP. There are two sets of facts. First, in some NC languages (like West Flemish (WF) or Bavarian), negative indefinites have to move out of their base position in order to take sentential scope and avoid a double negation (DN) interpretation (HAEGEMAN & ZANUTTINI 1991, WEIß 2002, SVENONIUS 2002), e.g. (37).

(37) Bavarian

a. da Sepp war [*mid nix*]$_i$ *ned* t $_i$ zfriem. (NC)
the Joe was with nothing NEG satisfied
'Joe was not satisfied with anything'

b. da Sepp war *ned* [*mid nix*] zfriem. (DN)
the Joe was NEG with nothing satisfied
'Joe was not satisfied with nothing' (WEIß 2002: 147)

Second, in the Scandinavian languages, negative indefinites are fine in postverbal position in verb second clauses as long as the verb is not complex, (38a). In case it is, the finite auxiliary is in the verb-second position, while the non-finite main verb remains low. Even though the Scandinavian languages are SVO, a negative indefinite may not remain in its base position in such a case, (38b) (CHRISTENSEN 1986).[23] That is, it either has to shift out of VP (vacuously satisfied in (38a)), which however is only fully grammatical in case of complex verbs (38c) in Icelandic, Faroese and West Jutlandic, and marginal (literary) in Norwegian, or negation has to be spelled out split from the indefinite (38d).[24]

(38) Norwegian (Bokmål)

a. Jon leser *ingen romaner*.
Jon reads no novels

b. *Jon har lest *ingen romaner*.
Jon has read no novels

c. % Jon har *ingen romaner*$_i$ lest t$_i$.
Jon has no novels read

d. Jon har *ikke* lest *noen romaner*.

[23] The phenomena studied by INGHAM (2000) also belong here.
[24] The patterns of variation are complex, cf. ENGELS (2012).

Jon has NEG read any novels

e. *Ingen romaner* har Jon lest.
no novels has Jon read (CHRISTENSEN 1986)

Both the Bavarian / WF data and the Scandinavian data have in common that negative indefinites may not occur inside VP.

HAEGEMAN & ZANUTTINI (1991) have argued for the former group of data that negative indefinites can only take sentential scope if they raise out of VP to "the specifier of a functional head bearing a negative feature" (thus, SpecNegP), under a condition they call the Neg-Criterion, (39), which has to be satisfied by LF at the latest (subject to cross-linguistic variation).

(40) The Neg-Criterion

(a) Each Neg^{o} must be in a Spec-Head relation with a Negative operator;

(b) Each Negative operator must be in a Spec-Head relation with a Neg^{o}.

(HAEGEMAN & ZANUTTINI 1991: 244)

There are two problems with the original proposal: first, HAEGEMAN & ZANUTTINI (1991) assume negative indefinites to be semantically negative, needing to undergo a process of factorization and absorption in SpecNegP to achieve a single sentential negation interpretation. This has been argued not to be true universally, in particular not in NC languages like Bavarian and WF, for which this mechanism was designed (cf. ZEIJLSTRA 2004, PENKA 2011). Furthermore, the movement also occurs in languages without NC (CHRISTENSEN 1986, WEIß 2002). A second, more theory-internal problem is that in recent versions of the theory, licensing in specifier-head-configurations has been replaced by the operation *Agree*, which creates a syntactic dependency between a *Probe* and a *Goal* c-commanded by the Probe, and can, but does not need to be followed by movement, which needs to be independently triggered (CHOMSKY 2000, 2001). Note that under ZEILSTRA's analysis of the WF and Bavarian facts, (41), NegP does not even have anything to do with the shift of the indefinite (which he vaguely attributes to scrambling for scope reasons, an option that would not be available in the Scandinavian languages, as they do not have scrambling).

(41) a. S'Maral woid koane (ned) hairadn

the=Mary.DIM wanted no one NEG marry

'Mary did not want to marry anyone.'

b. [$_{NegP}$ OP[iNEG] Neg [s'Maral [*koane*[uNEG] [$_{vP}$ *ned*[uNEG] [$_{v}$ woid] [$_{VP}$ hairadn]]]]] (ZEIJLSTRA 2004: 256)

Finally, the approach does not carry over to the Scandinavian phenomena, as Neg-shift exactly to the clause-medial position, which could be identified with SpecNegP, is not possible or degraded in many varieties.

The empirical facts of course still stand, so in fact, both a NegP-free account as well as NegP-accounts need a new explanation for these data (or, to turn around the common saying, *no one*'s problem is everyone's problem now). I do not have the space here to elaborate a full-fledged alternative account, but I would like to sketch a possible such, which essentially takes Neg-Shift to be overt QR with partial reconstruction (cf. ZEIJLSTRA 2011). This sketch of an alternative account departs from the assumption that negation is not a Boolean operator (as it is for PENKA 2011 for instance), but a quantifier, consisting of operator, restriction, and scope (cf. WEIß 2002 and literature cited there), (42).

(42) NEGx [*event*(x)][P(…x…)]

Adopting this view, I would like to propose that negation, in order to take sentential scope (i.e., over the event variable), it needs to reach the syntactic domain that is mapped to the operator of the tripartite quantifier, and leave the domain that is mapped to nuclear scope, i.e. VP (DIESING 1992). Note furthermore that nuclear scope is the domain associated with focus, while elements in the restrictor clause are interpreted as background (PARTEE 1991). A further essential ingredient for my sketch of an account is ZEIJLSTRA's (2011) analysis of negative indefinites (NIs) in languages like Dutch and German as being syntactically composed of a negative operator and non-negative indefinites (like n-words), which undergo QR and may then partially reconstruct (only the indefinite part). This can account for split-scope readings such as (43).[25]

(43) Du must *keine Krawatte* anziehen

[25] As also discussed in PENKA (2011) and earlier publications of hers, the other two readings with the NI as a negative quantifier (¬ > ∃ > must and must > ¬ > ∃) are possible, too, but less natural.

you must no tie wear

'It is not required that you wear a tie' (¬ > must > ∃) (ZEIJLSTRA 2011: 113)

Next, note that languages with Neg-Shift in NC-languages discussed in the literature are all languages for which there is a standard variety with NIs which behave like NQs, such as Bavarian (German) and West Flemish (Dutch). That is, their morphologically negative indefinites are possibly NIs (with more internal structure as proposed by Zeijlstra) when inside VP, but n-words (without an extra layer for the negative operator) when shifted.[26] The Scandinavian languages have Neg-Shift, but do not have NC. Assuming that NIs in the Scandinavian languages also syntactically decompose in the manner outlined by ZEIJLSTRA (2011) gives us a handle on the enormous variation in Neg-Shift (CHRISTENSEN 1986, SELLS 2000, SVENONIUS 2002, ENGELS 2012) in the Scandinavian languages: where (for whatever reasons which are irrelevant here) complete shift of the NI to the clause-medial position is not possible or degraded[27], the indefinite is spelled out separately from the negative operator.

If the negative operator is interpreted inside nuclear scope (=VP), it will be interpreted together with the indefinite as a negative quantifier. The fact that non-shifted NIs tend to have a contrastive, focal interpretation squares with nuclear scope being associated with focus (PARTEE 1991). This is not, in fact, restricted to the interaction of negation and indefinites in its scope. DORNISCH (2000) observes that in Polish, postverbal negative as well as non-negative quantifiers are only felicitous under special information structural conditions: they require heavy contrastive stress, (44a). The unmarked position for *both* types of quantifier is the shifted one, (44b).[28] If Neg-Shift cannot be generally attributed to the need to satisfy a feature in NegP, but is but an instantiation of a more general pattern of quantifier shift, there is no requirement that the target of the movement of negative indefinites be NegP either, casting further doubt on the necessity of assuming a NegP.

(44) Polish

[26] Note that the VP-internal position is also the one where only "strong" pronouns under MS can occur.
[27] Complete shift is always possible to sentence-initial position.
[28] In Icelandic, while Neg-shift is obligatory, also (non-negative) quantifiers optionally leave VP, (i) (SVENONIUS 2002 and literature cited there).

(i) Ég hef (mörgum bókum) skila Jóni (mörgum bókum).
I have many books returned John many books
'I have returned many books to John' (adapted from SVENONIUS 2000)

a. Anna □ *nikogo*$_i$ nie widziała t_i / %*NIKOGO*

Anna no one NEG saw no one

b. Anna □ *coś*$_i$ widziała t_i / %*COŚ*

Anne something saw something

'Anna saw no one / something' (DORNISCH 2000)

The proposed alternative to a NegP-account is therefore that it is not a property of a higher Neg-head which triggers the evacuation of VP, but properties of the shifting phrases themselves. That is, Neg-Shift is a form of foot-driven movement. Under a neutral, sentential scope interpretation, the negative operator is interpreted in the shifted position, and the indefinite part inside nuclear scope, where it is existentially closed, but under a focussed interpretation, it can stay low, giving rise to the narrow focus / constituent negation reading (cf. also the observations by DE CLERCQ 2011).

Finally, it is worth pointing out the diachronic dimension of this proposal. Recall that new negation markers entering JC are first used as focus or constituent negators in incipient stage II of JC as seen in (5)/(35c), that is, in positions where MS predicts "strong" elements to occur. Recall furthermore that OS seems to only slowly develop morphologically negative indefinites, by univerbation of a non-negative indefinite and a negation marker, and that they originally could not co-occur with each other, indicating that they were interpreted like e.g. German NIs. Under present assumptions, FE later turned them into [uNEG] n-words, while MS removed the extra OP¬-layer, on the way to MLG. That is, the sketched account of Neg-Shift can very well be reconciled with the proposed account of JC, assuming that under MS, negative indefinites can only be inserted inside VP if they are "strong", that is, contain an extra structural layer with their own OP¬, while they can receive the "split" interpretation, or be n-words (without the additional layer) in the medial position, and need to be inserted (under MS) in the absence of focus.

6. Conclusion

The main claim defended in the current paper was that it is possible to capture the stages of JC, as well as the typology of adverbial negative markers, cross-linguistically, by a combination of two third-factor principles, CARDINALETTI & STARKE's (1999) Minimize

Structure and VAN GELDEREN's (2011) Feature Economy, without at the same time adopting the NegP-hypothesis. Based on observations on the development of negation in historical Low German as well as the distribution of negative particles in other languages, it was shown that negative markers across languages and historical stages of languages show a distribution comparable to the distribution of pronouns or modal particles observed in the literature, which is determined by differing amounts of internal structure, and which can be linked to a diachronic cline. The same way there are strong, weak and clitic pronouns (CARDINALETTI & STARKE 1999), which can eventually grammaticalize further to become agreement affixes (VAN GELDEREN 2011), there are strong, weak, clitic and affixal negative markers. In addition to the amount of internal structure they have, which is subject to MS, and which determines their syntactic distribution, they bear formal negation features which are subject to FE. Among others, this determines how they interact with indefinites in the scope of negation. It was further argued that these two principles do not apply automatically, as syntactic change only happens given solid triggers, otherwise, syntax is inert (KEENAN 2002, LONGOBARDI 2001).

The proposed account makes clear predictions concerning the kinds of diachronic stages and language types that are possible, and extends PENKA's NegP-free approach to non-strict NC languages by identifying a class of clitic negative adverbs, besides the less controversial affixal and phrasal ones. Finally, contrary to common belief, the NegP-hypothesis does nothing to elucidate the two different kinds of Neg-Shift facts, as the evidence that SpecNegP is the position targeted is insufficient. I sketched an alternative account of Neg-Shift that starts from the assumption that negation is a quantifier in the scope of which only focussed material or existentially closed indefinites can stay. In order to obtain sentential scope, any negative operators need to be interpreted outside this domain, but that does not entail that they need to be in a specific specifier position for that.

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