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The Negative Cycle, Negative Concord and the Nature of Spec-Head Agreement

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The Negative Cycle, negative concord and the nature of spec-head agreement¹

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Abstract

Jespersen (1924: 333) observes that the (im)possibility of negative concord (henceforth, NC) is related to the way languages mark pure sentential negation. Languages 'in which the ordinary negative element is comparatively small in phonetic bulk' are NC languages, while languages which use 'fuller negatives' are not. The purpose of this paper is to provide an account for this rather robust generalisation, which I shall refer to as *Jespersen's generalisation*, for want of a better term. The account proposed will exploit: (a) Jespersen's typology of (the development of) systems of pure sentential negation, known as the Negative Cycle; (b) Pollock's (1989) NegP hypothesis; and, (c) the mechanism of A'-binding. According to the NegP hypothesis, sentential negation is associated with an autonomous functional projection. Thus, the Negative Cycle can be analysed as cyclic to-ing and fro-ing between SpecNegP and Neg° of the overt realisation of the marker of sentential negation: negative elements which are 'comparatively small in phonetic bulk' are generated under Neg°, while 'fuller negatives' are associated with SpecNegP. Consequently, *Jespersen's generalisation* suggests that NC correlates with the marker of pure sentential negation being associated with a syntactic head (Neg°) rather than a specifier (SpecNegP). The explanation offered to account for the generalisation centres on: (a) a 'weak' (re-)interpretation of the spec-head agreement mechanism (inherent in Haegeman & Zanuttini's (1991) wellformedness condition on the distribution and interpretation of negative constituents known as the Neg Criterion) which only obliges a specifier to be compatible with its head; and (b) the idea that SpecNegP is an A' scope position. Operators in SpecNegP can – subject to the constraints imposed by relativised minimality – take scope over constituents in their c-command domain via A'-binding. Inherently negative elements which take scope over each other cancel each other out. This is the case of non-NC languages, in which pure sentential negation is overtly marked by an inherently negative operator in SpecNegP, which has scope over its c-command domain and cancels out other inherently negative elements lower in clause structure, hence the unavailability of NC. In the case of NC languages, in which pure sentential negation is marked by an inherently negative Neg°, the proposed 'weak' version of the spec-head agreement mechanism fails to share the [+Neg] feature with the operator in specifier position. Given that SpecNegP is not then negative, there is no [+Neg] feature in scope position to cancel out other occurrences of [+Neg] in its scope, hence the phenomenon of NC.

¹ Thanks to Bernadette Plunkett and Liliane Haegeman for commenting on earlier drafts of this article and for their readiness to discuss my ideas with me, and to Ljiljana Progovac for e-mail discussion of some of this material. My thanks also to the following friends and colleagues for help with a number of languages: Joseph Cunningham (Cockney), Juliet Wigmore (German), Janet Lloyd (Spanish), Joëlle Riley and Myriam Carr (French), Jamal Ouhalla (Taqbaylit) and Susan Hill (Italian), and to the numerous respondents who replied to my queries on the LINGUIST list. Last, but not least, thanks to Leo Hickey and Chris Lyons for their insightful comments as editors. Some of the material in this article has been presented at the University of Manchester. See Rowlett (1994b) for details.

0 Introduction and Overview

0.1 Introduction

In this paper, I consider the close relationship between the way languages mark pure sentential negation and the (un)availability of negative concord (henceforth, NC). Jespersen (1924: 333) observes that languages 'in which the ordinary negative element is comparatively small in phonetic bulk' are what we might call NC languages, while languages which use 'fuller negatives' are not. Jespersen notes further that the way languages mark pure sentential negation is subject to a cyclic development diachronically: languages fluctuate, over time, between marking pure sentential negation with negative markers which are 'comparatively small in phonetic bulk' and using 'fuller negatives'. This diachronic pattern is referred to as the Negative Cycle in the literature. The (im)possibility of NC is thus determined by where a language stands in the Negative Cycle. This rather sturdy generalisation will be referred to as *Jespersen's generalisation*. My aim is to provide an account for *Jespersen's generalisation*.

0.2 Overview

The paper will be organised in the following way. In section 1, I discuss Jespersen's (1917; 1924) Negative Cycle and, more generally, I introduce his typology of systems of pure sentential negation. In section 2, I briefly present Pollock's (1989) NegP hypothesis, a theoretical proposal which provides a structural template on which to view Jespersen's typology of markers of sentential negation and the Negative Cycle, and which will allow us to state *Jespersen's generalisation* in concrete structural terms. According to the NegP hypothesis, sentential negation should be analysed in terms of an autonomous syntactic projection: a negative phrase, or NegP. The structural difference between the two different types of negative element distinguished by Jespersen above is that those which are 'comparatively small in phonetic bulk' are head elements generated under Neg° while the 'fuller negatives' are phrasal elements associated with SpecNegP. Section 3 presents NC, the phenomenon whereby (the negative feature of) multiple negative elements appearing in the same domain (clause) do not cancel each other out, contrary to what one might expect them to do if the behaviour of negation in natural language could be assimilated in straightforward fashion to the behaviour of the Boolean operator of negation \neg . In Boolean logic, two occurrences of \neg cancel one another out. In NC languages, they appear not to cancel each other out; if anything, they reinforce each other.

NC is a common but not universal feature of natural language. Thus, in the Standard English (henceforth, SE) example in (1a), the two negative constituents cannot be interpreted in terms of a single instance of sentential negation – they cancel each other out – while in the Italian example in (1b), the two negative constituents do not cancel each other out. SE is a non-NC language while Italian is an NC language.

(1) *Standard English:*

- a No-one did nothing (non-NC)
(i.e., someone did something)

Italian:

- b Nessuno ha fatto niente (NC)
No-one has done nothing
'No-one did anything.'

From section 4 onwards, I deal with Jespersen's observation that whether a language is an NC language or not depends on where it stands in the Negative Cycle, i.e., on the way it marks pure sentential negation. Within the framework of the NegP hypothesis, the generalisation can be expressed as in (2):

(2) *Jespersen's generalisation:*

A language is an NC language iff the marker of pure sentential negation is not associated with SpecNegP.

Section 4 is devoted to showing that (2) is a sturdy generalisation: languages which do not mark pure sentential negation on SpecNegP are NC languages; languages which do are not. (As will be discussed in section 4.2.1, (2) has consequences for the analysis of 'negative quantifiers' in French. One potential counterexample to (2), West Flemish (henceforth, WF), is discussed and analysed in section 6.3.)

Before addressing potential ways of accounting for the generalisation in (2), I consider, in section 5, Haegeman & Zanuttini's (1991) Neg Criterion, a wellformedness condition on the distribution and interpretation of negative constituents. According to the Neg Criterion, irrespective of whether it is the syntactic head or the specifier which is associated with overt markers of pure sentential negation, *both* positions are syntactically active and 'agree'². In section 5.2, I suggest that the way in which spec-head agreement is interpreted should be modified. More specifically, it should be weakened to allow the abstract feature [+Neg] to be subject to cyclic fluctuation in the same way as the overt realisation of sentential negation. This amounts to claiming that there is an 'abstract' Negative Cycle running alongside the 'overt' Negative Cycle discussed by Jespersen; in the same way that sentential negation does not have to be *overtly* marked on both Neg° and SpecNegP in order to express pure sentential negation, so it will be argued that the *abstract* feature [+Neg] does not have to appear on *both* Neg° and SpecNegP in order for the Neg Criterion to be satisfied.

In section 6, I turn to an account of the generalisation in (2). Before offering my own analysis, I review approaches to negative polarity item (henceforth, NPI) licensing suggested by Zanuttini (1991), based on L-marking (section 6.1.1), and Progovac (1994, etc.), based on A'-binding (section 6.1.2). I conclude that Zanuttini's L-marking approach does not achieve empirical adequacy, while Progovac's A'-binding proposal not only raises serious theory-internal questions but also fails to provide a model capable of dealing with cross-linguistic and diachronic variation. In other words, Progovac's proposal cannot, as presented, account for the generalisation in (2). In section 6.1.3, I propose an analysis of *Jespersen's generalisation* which is based on Progovac's account of NPI licensing in negative contexts but which exploits the flexibility of the 'weak' version of spec-head agreement argued for in section 5.2. The analysis will depend crucially: (a) on the possible cross-linguistic variation with respect to whether SpecNegP is specified with the feature [+Neg]; and (b) on a binding approach to polarity item licensing similar, but theoretically superior to, the one proposed by Progovac (1994). In section 7.1, I speculate about other areas of

² With respect to the level of representation at which the Neg Criterion must be met, there is some disagreement in the literature. In his adoption of the *wh*-criterion, on which the Neg Criterion is modelled, Rizzi (1990; 1991) assumes it applies at LF universally, but that it may, in some languages, be met as early as S-structure. The possibility that the criterion could be met in the base is not explicitly considered. Haegeman (forthcoming), following suggestions made by Brody (1993), argues that the Neg Criterion applies universally at S-structure.

current theoretical debate which could possibly be illuminated by extensions to the suggestions made here. My conclusions are summarised in section 7.2.

1 The Negative Cycle

Jespersen (1924) notes a cyclic pattern in the diachronic development of systems of pure sentential negation. This cyclic pattern is referred to as the Negative Cycle, and is illustrated in Germanic and Romance in (3) and (4) respectively, from Jespersen (1924: 335-6),

(3) *English:*

- a Ic ne secge
- b I ne seye not
- c I say not
- d I do not say
- e I don't say

(4) *French:*

- a Jeo ne di
 - b Je ne dis (pas)
 - c Je ne dis pas (Standard written French)
 - d Je (ne) dis pas (Standard spoken French)
 - e Je dis pas (Colloquial French)
- 'I don't say.'

In the first instance, for example, sentential negation is marked by a (pro)clitic element alone (cf. (4a)). This is where Modern Italian and Modern Spanish stand in the Negative Cycle:

(5) *Italian:*

- a Gianni *non* telefona a sua madre
- G. not telephones to his mother
'G. doesn't phone his mother.'

Spanish:

- b *No* soy inglés
- Not I-am English
'I'm not English.'

The preverbal element then comes to be 'reinforced' by a syntactically independent postverbal constituent, initially optionally (cf. (4b)), but subsequently obligatorily (cf. (4c))^{3,4}. It would seem that the position in the Negative Cycle occupied by some dialects of Berber is the same as that occupied by French in (4b). In the null-subject Taqbaylit dialect, sentential negation is marked by an (obligatory) proclitic marker, *ur*, with optional

³ It has been suggested, in the French case illustrated in (4), that the (pro)clitic negative marker came to be supported by the independent postverbal marker for phonological reasons. It is also possible that more strictly syntactic issues are involved. See Rowlett (in progress) for discussion.

⁴ See Price (1993) for evidence that the postverbal markers were not always interpreted negatively.

reinforcement by an independent postverbal negative marker, *ara*.

(6) *Taqbaylit dialect of Berber:*

Ur zrih (ara) Idir
ur saw-1SG ara Idir
'I didn't see Idir.'

In the next stage of the Negative Cycle, the independent postverbal negative marker suffices to mark sentential negation on its own (to all intents and purposes it 'becomes' negative), whereby the clitic marker becomes first optional (cf. (4d)), then disappears altogether (cf. (4e)).

In the final stage, the independent postverbal negative marker itself weakens and is susceptible to reanalysis, or grammaticalisation, as a (functional) head (cf. (3e))⁵. The stage reached by English and illustrated in (3e), i.e., reanalysis of the negative XP as a functional X°, does not appear to have been reached (yet) by metropolitan French, even in the most informal spoken registers. However, there is some evidence to suggest that *pas* has become partially grammaticalised in Québécois, the dialect of French spoken in the province of Quebec, Canada. Thus, in parallel to *not* in SE (see footnote 18), in Québécois French, *pas* seems to have the dual status of head and maximal projection. This idea is exploited in Rowlett (in progress) where it is used to account for some interesting patterns involving apparent double negation. The same idea has also been put to me by Stefan Frisch (pc). Similar claims have been made for negative [pa] found in French-based creoles. In all French-based creoles (apart from Réunionnais, according to Battye & Hintze (1992: 325)), [pa] is preverbal rather than postverbal as in both Metropolitan and North-American French⁶.

(7) a *Mwē pa ē mē u* (Aub-Buscher (1993: 210))

Me not like you
'I don't like you.'

b *Nu pa ti pu rātre* (Mauritian (Green (1988: 450)))

We not PAST PROSPECTIVE go-back
'We wouldn't have gone back.'

The pattern is therefore cyclic: once the syntactically independent negative marker has been grammaticalised as a functional head, the language is in some sense back where it started and the cycle can be repeated. Jespersen's Negative Cycle can therefore be reduced to fluctuation between marking sentential negation either as an overt clitic-like constituent or as a syntactically independent constituent, with an intermediate stage in which sentential negation is bipartite.

⁵ See Hopper & Traugott (1993) for detailed discussion of grammaticalisation. For more detailed discussion of the Negative Cycle in French, see Hopper & Traugott (1993: 58).

⁶ As Chris Lyons has pointed out to me, the issue arises as to whether its preverbal position is enough to make us conclude that [pa] is a head. An alternative would be to suggest that [pa], like *pas*, is associated with SpecNegP, and that the verb fails to raise to the left of it.

2 NegP

The empirical insight of Jespersen's Negative Cycle was provided with a structural framework within the terms of a proposal made by Pollock (1989) that sentential negation should be syntactically encoded in terms of an autonomous functional projection: a Negative Phrase, or NegP. Other researchers have suggested that Pollock's NegP could more perspicaciously be labelled Pol(arity)P. PolP would be present in all clauses (not just negative ones) and would be the locus of the feature [+Neg] in negative clauses. (See also Laka's (1990) Σ P and Belletti (1990).)⁷

An independent functional projection provides two new structural positions, namely SpecNegP and Neg°, a phrasal position and a head position. This is particularly convenient for an account of Jespersen's typology of sentential negation and the Negative Cycle. The clitic-like and independent negative markers identified by Jespersen can quite naturally be analysed as syntactic heads and syntactic phrases, associated with Neg° and SpecNegP respectively. Consequently, the Negative Cycle can be claimed to amount to cyclic to-ing and fro-ing of the overt realisation of sentential negation between these two positions. In the case of Standard French, Pollock (1989) claims that *ne* is generated in Neg° while *pas* is generated in SpecNegP. The superficial ordering in which *ne* precedes *pas* is achieved by assuming that *ne* raises into AgrS°, the functional head associated with subject agreement features. In Rowlett (1993a), I present empirical arguments suggesting that French *pas* is actually base-generated in a lower position in the clause, and that it does not occupy SpecNegP until S-structure. I argue that the reason *pas* raises into SpecNegP is to satisfy Haegeman & Zanuttini's (1991) Neg Criterion, which is discussed in section 5 below.

Given the availability within NegP of two positions of two clearly different syntactic types, i.e., one head and one specifier, there are, in principle at least, two potential positions with which an abstract feature such as [+Neg] can be associated. In addition, there is the possibility of [+Neg] being associated with both positions. The empirical basis of Jespersen's Negative Cycle certainly suggests that the overt, i.e., *morphophonological*, locus of sentential negation can shift cyclically between SpecNegP and Neg°, with an intermediate stage in which both positions are associated with phonological material. Under the assumption that sentential negation is always marked by an abstract, i.e., *syntactico-semantic*, feature [+Neg], there is, I would suggest, no *a priori* reason to assume that the locus of this abstract feature cannot fluctuate cyclically in the same way as the overt marker of negation, at least underlyingly⁸. This possibility will be pursued and elaborated upon in the following sections

⁷ Pollock's article is based on work on French, for which Pollock suggests NegP intervenes between the two other functional heads, TP and AgrSP. Ouhalla (1990) argues that the ordering of these functional projections is subject to cross-linguistic parametric variation.

⁸ It is unclear to me how closely the overt locus of sentential negation should correspond to the abstract locus of sentential negation. That is, does the fact that a given language overtly marks sentential negation as, say, SpecNegP *necessarily* mean that SpecNegP, rather than Neg°, bears the abstract feature [+Neg]? And what if negation is overtly marked as a head? Is the head then *necessarily* the locus of the feature [+Neg] to the exclusion of SpecNegP? Or is the feature then borne by both positions? The strong hypothesis would obviously be that the locus of the abstract feature corresponds to that of the overt marker, i.e., that the 'abstract' Negative Cycle should be an isomorphism of the 'overt' Negative Cycle, and this hypothesis would need to be tested empirically. Some of the data discussed here suggest that this hypothesis is in fact too strong. (See section 4.2.2.) However, it seems to me unreasonable that Jespersen's 'overt' Negative Cycle should be totally unrelated to, i.e., independent of, the 'abstract' Negative Cycle proposed here. What seems much more likely is that one should essentially 'follow' the other. Some evidence discussed below suggests

and will prove to be central to the proposed account of NC, to which I now turn.

3 Negative Concord (NC)

Languages vary with respect to whether or not they allow multiple apparently inherently negative constituents to appear, say, within the same clause without cancelling each other out. Van der Wouden (1994: 95) distinguishes between two NC phenomena which he labels 'negative spread' and 'negative doubling'. Negative doubling is illustrated in (8a) and (9a) in the NC languages Spanish and Italian respectively⁹. Here, a negative phrasal quantifier, i.e., *nadie/nessuno* 'no-one', appears together with, i.e., 'doubled' by, a unique negative marker proclitic on the verb, i.e., *no/non* 'not'. (8b) and (9b) illustrate negative spread, whereby multiple negative phrasal quantifiers co-occur without their respective negative features cancelling each other out.

(8) *Spanish*:

- a *No conozco a nadie*
Not know-1SG no-one
'I don't know anyone.'
- b *Nadie me ha dado nada*
No-one to-me has given nothing
'No-one has given me anything.'

that it is the abstract cycle which follows the overt cycle. This is a welcome conclusion since it means that parameter-setting is determined by experience. Given that the pattern is cyclic, however, it may well be difficult to tell which is in front of which. See also the discussion of the nature of spec-head agreement in section 5.2.

⁹ In fact, it is only partially true to claim that Italian and Spanish show negative doubling. This is in fact only generally so in the case of postverbal negative constituents, such as those in text examples (8) and (9). In contrast, where the subject, in preverbal position, is a negative constituent, negative doubling is excluded (unlike Serbian/Croatian, cf. (16b)):

- (i) a *Nessuno (★non) ha telefonato* (Italian, from Haegeman (forthcoming: ch 4))
No-one not has phoned
'No-one phoned.'
- b *Nadie (★no) lo sabe* (Spanish)
No-one not it knows
'No-one knows it.'

Where a non-subject appears preverbally in Italian, the possibility of negative doubling appears to be subject to speaker and register variation:

- (ii) *A nessuno Gianni (%non) ha parlato* (Haegeman (forthcoming: ch 4))
To no-one G (%not) has spoken
'G. hasn't spoken to anyone.'

In similar configurations in Spanish, negative doubling is not attested:

- (iii) a *Nunca (★no) voy al cine*
Never not I-go to-the cinema
'I never go to the pictures.'
- b *Nada (★no) quiero*
Nothing not I-want
'I don't want anything.'

- (9) *Italian:*
- a Mario *non* ha visto *nessuno*
M. not has seen no-one
'M. hasn't seen anyone.'
 - b *Nessuno* ha fatto *niente*
No-one has done nothing
'No-one did anything.'

In the examples in (8) and (9), all the italicised constituents, i.e., the proclitic verbal negative marker and the negative quantifiers, are clearly morphologically negative, yet each utterance is interpreted as a single instance of negation.

Languages which do not allow *multiple* occurrences of negative constituents to be interpreted as a *single* instance of negation will be termed non-NC languages. In these languages it is assumed that the first negation takes scope over, and cancels, the second. Examples are SE and German:

- (10) *SE:*
- a I've (*★not*) seen *no-one*
 - b I've %(*★not*) given *nothing* to *no-one*
- (11) *German:*
- a Hans sieht (*★nicht*) *niemanden*
H. sees not no-one
'H. can't see anyone.'
 - b Ich bin %(*★nicht*) mit *niemandem nirgendwohin* gefahren
I am not with no-one nowhere travelled
'I didn't drive anywhere with anyone.'

The SE examples in (10) show that one or more *no*-NPIs (i.e., NPIs prefixed with *no*) cannot co-occur with the verbal marker of negation *not* (and receive the relevant NC interpretation). SE does not, therefore, demonstrate negative doubling. With respect to negative spread, while a *single no*-NPI can easily appear without *not*, the question of whether or not *multiple no*-NPIs can co-occur at all is not as clearcut. Some speakers as well as prescriptivists reject (10b) without the *not*; others, including myself, do not. Dialectal variation is doubtless at play here. German can be seen to pattern essentially with SE in this respect.

4 The relevance of the Negative Cycle for NC: *Jespersen's generalisation*

Ascertaining whether the Negative Cycle is relevant for (i.e., determines the availability of) NC amounts to establishing whether or not there is a correlation between the (im)possibility of NC and the position the language occupies in the Negative Cycle. Such a correlation would suggest that one was determined by the other, presumably that where a language stands in the Negative Cycle determines whether or not it is an NC language. Jespersen believes there is a correlation:

- (12) There is one very important observation to be made, without which I do not think

that we shall be able to understand the matter, namely that repeated negation [i.e., NC] becomes an habitual phenomenon in those languages only in which the ordinary negative element is comparatively small in phonetic bulk... If this repetition is rarer in modern English and German than it was formerly, one of the reasons probably is that the fuller negative *not* and *nicht* have taken the place of the smaller *ne* and *en*. (Jespersen (1924: 333))

Following my discussion of NegP in section 2, I shall assume that Jespersen's observation amounts to what I referred to as *Jespersen's generalisation* in (2) and repeated here for convenience in (13):

(13) *Jespersen's generalisation:*

A language is an NC language iff the marker of pure sentential negation is not associated with SpecNegP.

In the rest of this section, I present evidence from a number of languages suggesting that the observation expressed in (12) and (13) is valid.

4.1 NC languages and non-inherently negative SpecNegP

In this section, I provide data from a variety of languages to show that NC is possible only if SpecNegP does not bear the feature [+Neg], i.e., if sentential negation is marked by an element associated with Neg°. The languages which follow this pattern include Serbian/Croatian, certain non-standard varieties of English and, as indicated in the previous section, Italian and Spanish. In addition to those languages reviewed here, Zanuttini (1991: 149, 161) gives data which show that Middle High German, Middle Dutch, Portuguese, Romanian and Catalan all fit into this category. Jamal Ouhalla tells me that Berber belongs here too.

4.1.1 Serbian/Croatian

In Serbian/Croatian (henceforth, SC), pure sentential negation is realised as a negative particle, *ne* (Neg°), proclitic on the first finite verb form (Progovac (1994: 34-5, (82), (84))):

- (14) a Milan će pobeći
M. will run-away
'M. will run away.'
- b Milan poznaje Marij-u
Mi. knows Ma.-ACC
'Mi. knows Ma.'
- (15) a Milan *neće* pobeći
M. not-will run-away
'M. won't run away.'
- b Milan *ne* poznaje Marij-u
Mi. not knows Ma.-ACC
'Mi. doesn't know Ma.'

No other marker of pure sentential negation is required; *ne* cannot be omitted. I conclude, therefore, that Neg° bears the feature [+Neg] rather than SpecNegP. If the generalisation in (13) is correct, we predict that SC is an NC language.

SC has two sets of NPIs, much like SE. Progovic terms these *i*-NPIs and *ni*-NPIs, reflecting the fact that one set begins with the prefix *i-* while the other begins with the prefix *ni-*. Progovic glosses the *i*-NPIs and *ni*-NPIs as *anyone*, *anything*, etc., and *no-one*, *nothing*, etc., respectively, but stresses (e.g., Progovic (1994: 40, 42)) that the distribution of these elements is by no means identical to that of the two sets of NPIs in English^{10,11}. The most salient characteristic of the set of SC *ni*-NPIs is that they must be in the same clause as the overt preverbal negative marker *ne* (Progovic (1994: 37, (98))):

- (16) a Mario ★(*ne*) vidi *ni(t)ko-ga*¹²
 M. not sees no-one-ACC
 'M. can't see anyone.'
- b *Ni(t)ko* ★(*ne*) poznaje Marij-u
 No-one not knows M.-ACC
 'No-one knows M.'

Furthermore, multiple *ni*-NPIs can co-occur in a given clause, provided, of course, that preverbal *ne* is also present (Ljiljana Progovic, pc).

- (17) Milan ★(*ne*) daje *ni(t)kome ništa*
 M. not gives no-one nothing
 'M. isn't giving anything to anyone.'

In (16a/b), the negative features on the preverbal negative marker and on the *ni*-NPI do not cancel each other out; in (17), the negative features on the two *ni*-NPIs do not cancel each other out either. SC is therefore an NC language, as predicted by the generalisation in (13).

4.1.2 Non-standard English (NSE)

In this section, I use Cockney as a representative of a certain class of non-standard varieties of English¹³. In Cockney, pure sentential negation is always realised as the contracted *n't* rather than *not*, even if the use of *not* allows contraction elsewhere:

¹⁰ As we shall see, though, it is possible to analyse the SC *i*-NPIs and *ni*-NPIs as being identical to all intents and purposes to the *any*-NPIs and *no*-NPIs respectively in SE, the divergent distribution patterns of the two sets of NPIs in the two languages being due to a difference elsewhere in the respective grammars.

¹¹ It is debatable whether the *ni*-NPIs of SC (or the *no*-NPIs of English and Romance *n*-words) can be termed NPIs at all. These elements are usually treated as negative universal quantifiers, and I would agree with this analysis. I retain the term *ni*-NPI since it is used by Progovic, and the term *no*-NPI for consistency.

¹² *Niko* is Serbian; *nitko* is Croatian. The judgements in the text examples apply to both Serbian and Croatian.

¹³ See Labov (1972a/b) for discussion of other NSEs which demonstrate NC.

- (18) *Cockney*:
 a ('e) ain't comin'
 b ★e's not comin'

I shall take this contrast to be suggestive evidence that the [+Neg] feature is borne by the Neg° head rather than SpecNegP in this variety of English. If this is true, Cockney matches SC in this respect. The generalisation in (13) predicts that Cockney is an NC language. This prediction is borne out by the facts: Cockney has negative doubling with *n't* (but not with *not*), as in (19), as well as negative spread, as in (20):

- (19) a I ain't done *nothin'*
 b ★I've not done *nothin'*

- (20) *No-one* ain't done *nothin'*

The data above show that the *no*-NPIs behave in similar fashion to the *any*-NPIs of SE. The parallel is, however, not complete. Unlike the *any*-NPIs of SE, the concordant readings of *no*-NPIs in NSE are only possible in the presence of sentential negation, either in the same clause or in a higher clause. *No*-NPIs cannot appear in other non-negative polarity contexts in NSE, whereas SE *any*-NPIs can (Ladusaw (1992a)). In NSE, therefore, the behaviour of *no*-NPIs is thus strikingly similar to that of *ni*-NPIs in SC, which are also ungrammatical in non-negative polarity contexts (Progovac (1994)).

- (21) *NSE*:
 a If you see *anyone*/★*no-one*, let me know (Conditional)
 b I doubt *anyone*/★*no-one* will come (Adversative predicate)
 c Do you want *anythin'*/★*nothin'*? (Interrogative)

To summarise, SpecNegP arguably does not bear the feature [+Neg] in varieties of NSE such as Cockney. In addition, as predicted by (13), Cockney is an NC language.

4.1.3 Italian and Spanish

Data from Italian and Spanish to show that these languages fit the generalisation in (13) have in fact already been given. The data in (5) above suggest that [+Neg] is borne by Neg° rather than SpecNegP. Pure sentential negation in Italian and Spanish is marked by the preverbal negative particles *non* and *no* respectively, which, like SC *ne*, are proclitic on the first finite verb. Following most other researchers, I assume these elements are syntactic heads, heading NegP. More significantly, these negative markers are sufficient and necessary to mark pure sentential negation. Furthermore, the data in (8) and (9) in section 3 above show that Italian and Spanish are both NC languages, as predicted by the generalisation in (13).

4.2 Non-NC languages and inherently negative SpecNegP

In this section, I provide data from languages to show that NC is impossible if SpecNegP bears the feature [+Neg].

4.2.1 Modern French

Like Italian *non* and Spanish *no*, French *ne* is proclitic on the first finite verb. In contrast to the Italian and Spanish markers, though, *ne* is generally neither sufficient nor necessary to mark sentential negation in the modern language, although it was at earlier stages in the development of French. (See (4b) above.) As discussed in section 1, proclitic *ne* came to be reinforced by syntactically independent constituents, the most sturdy of which has proved to be *pas*.

(22) *Modern French:*

Je (*ne*) vois ★(*pas*) ta mère
I *ne* see *pas* your mother
'I can't see your mother.'

In view: (a) of the obligatory presence of *pas*, and only optional presence of *ne*, to mark pure sentential negation in the modern language; and (b) of the fact that *ne* can appear without contributing a negative feature to the clause¹⁴, I conclude that, underlyingly at least, SpecNegP (rather than Neg°) bears the feature [+Neg].

Given this conclusion, the generalisation in (13) predicts that Modern French should be a non-NC language. Evaluating this prediction, i.e., determining whether negative concord exists in Modern French on a par with, say, SC, Cockney, Italian or Spanish, is difficult since, with the exception of the determiner *nul*, no French 'negative' can convincingly be argued to be a morphologically negative quantifier (on a par with the *n*-words of Spanish and Italian, for example, the *ni*-NPIs of SC or the *no*-NPIs of SE)¹⁵. A set of morphologically negative indefinite quantifiers like Italian *niente* 'nothing', *nessuno* 'no-one' did not develop in French. Consequently, it is unclear whether the 'negatives' which do exist in the language and which co-occur with *ne* (in certain registers) as well as with each other, e.g., *rien* 'nothing/anything', *personne* 'no-one/anyone', *jamais* 'never/ever', are equivalent to the *no*-/*ni*-NPIs or the *any*-/*i*-NPIs of SE and SC respectively. On the basis of the generalisation in (13), we would of course predict that these French 'negatives' are equivalent to the *any*-/*i*-NPIs. Nevertheless, arguments have been advanced to support both analyses in the literature. For example, while Laka (1990) treats them as polarity items, Zanuttini (1991) argues that they are negative quantifiers. I shall not review the arguments presented for and against the two positions here; instead I refer the reader to the literature. (See also Quer (1993) for discussion.) Neither do I have much in the way of new empirical data to support either position. However, given the otherwise robust nature of the generalisation in (13), I shall adopt the analysis of these 'negatives' as being equivalent to the *any*-/*i*-NPIs, and conclude that Modern French is a non-NC language.

Support for this conclusion can however be drawn from a comparison of Modern French with earlier forms of the language. NC of a fashion was possible in seventeenth

¹⁴ See Rowlett (in progress) for arguments that *ne* is no longer inherently negative, e.g., in examples such as (i):

(i) Jeanine craint que Pierrette ne soit en retard
J. fears that P. *ne* be-SUBJ in lateness
'J. fears P. might be late.'

¹⁵ But see Haase (1969: 110, §52B), who claims that the negative value of *nul* has been progressively lost.

century French (henceforth, C17Fr) which is no longer possible. Examples of what I shall term 'periphrastic' NC (in contrast to the 'morphological' NC demonstrated by Italian, Spanish, Cockney and SC) are given below in (23), taken from Haase (1969: 256, §102A):

(23) C17Fr:

- a Encore qu'ils *n'aient pas* la mesure d'*aucune* sorte de vers
Yet that they *ne* have-SUBJ not the measure of any kind of verse
'Even though they don't sound like verse of any kind.'
- b *Ne faites pas* semblant de *rien*
Ne do not semblance of anything
'Don't pretend anything.'
- c Ce *n'est pas* que je pense à *personne* d'ici
It *ne* is not that I think of anyone from here
'It's not that I'm thinking of anyone here.'
- d On *ne veut pas rien* faire ici qui vous déplaît
We *ne* want not anything do-INF here which you displease
'We don't want to do anything which might upset you.'

In these examples, postverbal *pas* co-occurs with the 'negatives' *aucun* 'no/any', *rien* 'nothing/anything' and *personne* 'no-one/anyone' (as well as with *ne*). While the 'negatives' can, with some exceptions¹⁶, co-occur with each other in the modern language, they cannot co-occur with *pas* with a concordant interpretation. Where they do co-occur, the interpretation is that of a double negation (henceforth, DN).

The crucial difference between C17Fr and the modern language is that the former was still – but only just – at the stage in the Negative Cycle illustrated by (4b), whereas the latter is at the stage in the Negative Cycle illustrated by (4c/d/e) depending on the variety of Modern French under consideration. That is to say, in C17Fr, the appearance of postverbal *pas* to reinforce preverbal *ne* was still just about optional. Pure sentential negation could be marked using preverbal *ne* alone, as illustrated in (24) below, taken from Haase (1969: 251, §100B)¹⁷. In Modern French, in contrast, the appearance of postverbal *pas* is an obligatory marker of pure sentential negation, as shown in (22) above.

(24) C17Fr:

- a Je *ne* veux que l'une ni l'autre soit perpétuelle
I *ne* want-1SG that the-one nor the-other be-SUBJ perpetual
'I don't want either to go on forever.'

¹⁶ See Muller (1991: 269) for details and Rowlett (1994a; to appear) for analysis.

¹⁷ In fact, it was during the seventeenth century that the appearance of a postverbal marker of pure negation began to be obligatory. The examples given in the text are still typical during the early part of the century, but are rarer by the turn of the eighteenth century.

- b Il *ne* meurt de cette peine
He *ne* die-3SG of this pain
'This pain isn't killing him.'
- c Je *ne* veux du tout vous voir
I *ne* want-1SG at all you see-INF
'I don't want to see you at all.'
- d Aussi pour *ne* vous ennuyer, je vous les dirai
Also for *ne* you annoy-INF, I you them will-say
'Therefore, in order not to annoy you, I will tell you them.'

C17Fr thus belongs with those languages reviewed in section 4.1. Accordingly, the generalisation in (13) predicts that C17Fr should be an NC language. Indeed, it is clear that this is the case. Proclitic *ne* which, at that time was still truly negative, could co-occur with postverbal *pas*, which was also negative, and receive a concordant reading. Significantly, this type of structure is not possible in the modern language (with the relevant interpretation). Recall though that the 'negatives' can co-occur with each other without negation being cancelled out. I take this to be further evidence to support the argument that French 'negatives' such as *personne* and *jamais* are equivalent to the *any*-NPIs and *i*-NPIs of SE and SC, and that Modern French fits the generalisation in (13).

4.2.2 Standard English

As with Modern French, the situation in SE is also unclear. In SE, sentential negation can be marked either by the XP *not*¹⁸ or the X° *n't*. Most recent analyses of negation in SE conclude that *not* is generated in SpecNegP while *n't* is generated as Neg°. If this is true, it would be natural to claim that *n't* is the grammaticalised equivalent of *not*. Unlike, say, *ne* and *pas* in Standard French, *n't* and *not* do not co-occur as sentential negators, although either can co-occur with *not* when the latter functions as a constituent negator (and the two instances of negation cancel each other out).

- (25) a I do *not* like Vodka.
b I don't like Vodka

I conclude, on the basis of (25a), that, minimally, SpecNegP bears the feature [+Neg]. (See Zwicky & Pullum (1983) for a claim that *n't* is in fact an (morphological) inflectional affix rather than a (syntactic) clitic.)

With respect to NPIs in SE, the 'equivalent' of the SC *ni*-NPIs, i.e., the *no*-NPIs,

¹⁸ The syntactic status of *not* is in fact unclear. There is probably an intermediate stage between *not* as an XP specifier and *n't* as a head, namely *not* as a head. Witness the grammaticality of (i), taken from Quirk *et al* (1985: 809), cited by Haegeman (forthcoming: ch 4):

- (i) a Has not John been there too?
- b Is not history a social science?
- c Does not everything we see about us testify to the power of Divine Providence?

Here, *both* the auxiliary *and* the negation have inverted to a pre-IP position. Assuming this analysis to be along the right lines, the auxiliary and the negation must first have formed a complex head, implying in turn that *not* is itself an X° constituent. See also Williams (1994) for discussion of the syntax of *not*.

cannot co-occur with either *not* or *n't*:

- (26) a ★Michael can *not* see *no-one*
b ★Michael can't see *nothing*

Not surprisingly, multiple instances of *no*-NPIs together with *not/n't* are also illicit:

- (27) a ★I did *not* give *nothing* to *no-one*
b ★I didn't give *nothing* to *no-one*

In conclusion, in SE negative sentences, the feature [+Neg] is borne by SpecNegP and SE is clearly a non-NC language.

4.3 Conclusion

The comparison between the two types of language reviewed in the above two subsections is illustrated in the table in (28):

(28)

Languages	[+ Neg] on SpecNegP?	NC?
SE/Ger/Dut/ModFr, etc.	Yes	No
SC/NSE/Sp/It/C17Fr/MHG/MHD/Port/Rom/Cat/Ber, etc.	No	Yes

On the basis of the languages reviewed, it would seem that the observation made by Jespersen in (12), formalised within the current theoretical framework in (13) holds. In the next sections, I turn my attention to providing an analysis of *Jespersen's generalisation*. This will involve evaluating and suggesting modifications to analyses of NPI licensing in negative contexts which have appeared in the literature. (See section 6.) In order to understand the background to those proposals and, more specifically, the modifications proposed here, it will first be necessary to consider the Neg Criterion, a wellformedness condition on the distribution and interpretation of negative constituents and structures, proposed by Haegeman & Zanuttini (1991).

5 The Neg(ative) Criterion

In recent work, Haegeman & Zanuttini have proposed (1991: 244, (27)) that the well-known similarities between the behaviour of *wh*-constructions and negation warrant the Neg(ative) Criterion in (29), alongside the *wh*-criterion in (30), after May (1985: 17) and Rizzi (1991):

(29) *The Neg Criterion*:

- a Each Neg X° must be in a spec-head relationship with a Neg operator;
b Each Neg operator must be in a spec-head relationship with a Neg X°.

(30) *The wh-criterion:*

- a Each *wh*-X° must be in a spec-head relationship with a *wh*-operator;
- b Each *wh*-operator must be in a spec-head relationship with a *wh*-X°.

Indeed, the two criteria in (29) and (30) are seen as construction-specific instantiations of a more general wellformedness condition on the distribution and interpretation of affective elements, namely the AFFECT criterion¹⁹:

(31) *The AFFECT criterion:*

- a Each AFFECTIVE X° must be in a spec-head relationship with a AFFECTIVE operator;
- b Each AFFECTIVE operator must be in a spec-head relationship with an AFFECTIVE X°.

Each clause of the Neg Criterion arguably has two parts:

- (32) a the first, explicit, obliges two constituents of specific types to be in a specific configuration (spec-head);
- b the second, implicit, says that the two constituents must 'agree' with each other (with respect to the relevant feature, i.e., [Neg]).

The two clauses of (32) are discussed in the following two subsections.

5.1 The configuration

According to (32a), Jespersen's Negative Cycle is something of an epiphenomenon. Assuming that, as the locus of clausal polarity, a functional projection such as NegP is projected in all negative clauses, the Neg Criterion forces us to postulate the presence in negative clauses of both a Neg° and a SpecNegP (in abstract syntactic terms at LF at least), irrespective of where the language stands in the Negative Cycle.

So, where a variety overtly encodes sentential negation in the form of a negative head constituent alone (e.g., in Italian, base-generated as [_{Neg} non]), the Neg Criterion obliges us to posit the presence of an abstract negative operator XP which occupies SpecNegP. Rizzi (1990) provides evidence for postulating the presence of an operator in SpecNegP in Italian by showing that negative sentences exhibit inner island effects. Consider the minimally contrasting pair in (33):

- (33) a *Perché*_{1/2} hai detto [*t*₁] che Gianni è partito [*t*₂] ?
Why have-you said that G. is left
'Why did you say that G. left?'
- b *Perché*_{1/*2} non hai detto [*t*₁] che Gianni è partito [*t*₂] ?
Why *non* have-you said that G. is left
'Why didn't you say that G. left?'

(33a) allows the adverb *perché* 'why' to be construed either with the matrix or with the

¹⁹ The notion 'affective' operator is due to Klima (1964).

embedded clause: the string can be interpreted as a question about saying or about leaving. In (33b), which differs from (33a) only with respect to the presence of sentential negation in the matrix clause, realised as proclitic *non*, the second of these two possibilities disappears. (33b) can only be a question about saying. In Rizzi's analysis, the unavailability of the long-distance construal of *perché* is due to the presence of the abstract operator in SpecNegP in the matrix clause which counts as a typical potential A'-antecedent governor intervening between the surface position of *perché* and its trace adjoined to the embedded VP. Long construal of *perché* thus violates relativised minimality²⁰. Without postulating the presence of an abstract operator in SpecNegP in the matrix clause in (33b), it would not be possible to explain the unavailability of long construal of *perché*.

Similarly, where a variety overtly encodes sentential negation in the form of a negative XP (e.g., SE [_{SpecNegP} not]), the Neg Criterion obliges us to posit the presence of an abstract negative head. The following contrast provides evidence for the presence of an abstract Neg° in SE:

- (34) a John likes chocolate
b ★John (not) likes (not) chocolate

Within the Checking Theory of Chomsky (1993), a string such as (34a) is derived in such a way that the inflectional features of the finite verb are checked by post-Spell-out head-to-head movement to the highest inflectional head, arguably AgrS°. This is not possible in (34b). If *not* is analysed as a specifier (with a syntactically inert head) or as an adjunct, there is no immediate way of accounting for the fact that the verb cannot be tensed **and** co-occur with sentential negation. If, on the other hand, *not* is analysed as a specifier with an abstract head, the ungrammaticality of (34b) can be accounted for by arguing that the abstract head has the lexical property of blocking post-Spell-out movement of the verb to check its inflectional features.

In languages with bipartite pure sentential negation, e.g., Standard French and Standard Breton, which overtly realise both a negative X° and XP (cf. (4c) above for Standard French and (35) below for Standard Breton), the Neg Criterion is satisfied by two overt constituents. (See Rowlett (1993a) for an analysis of how pure sentential negation in Standard French satisfies the Neg Criterion.)

²⁰ The following definitions are based on Rizzi (1990: 6-7):

Relativised Minimality:

A antecedent-governs B only if there is no C such that:

- (i) C is a typical potential antecedent-governor for B;
- (ii) C c-commands B and does not c-command A.

Antecedent-government: A antecedent-governs B iff

- (i) A and B are co-indexed;
- (ii) A c-commands B;
- (iii) no barrier intervenes;
- (iv) Relativised Minimality is respected.

(35) *Standard Breton:*

- a *Ne ziskenn ket ar vugale betek an hent*²¹ (from Stephens (1993: 397))
Ne go-down ket the children to the road
'The children are not going down to the road.'

- b *Ar paotr ne zigor ket an nor* (from Ternes (1992: 391, (32)))
The boy ne opens ket the door
'The boy doesn't open the door.'

5.2 The agreement

Turning now to (32b), the specifier-head relationship explicitly referred to in the Neg Criterion in (29) has generally been interpreted as entailing agreement. Following Chomsky (1986b: 24), it is often assumed that spec-head agreement amounts to the matching of relevant features. Where both specifier and head bear matching features by virtue of their lexical properties, spec-head agreement can be seen as a 'static' checking mechanism. However, where the features are borne by the specifier but not by the head, the features are assumed to be transmitted to the head by a 'dynamic' process of agreement²². Thus, the spec-head agreement which guarantees that verbs agree with subjects has been assumed to amount to ϕ -feature sharing, whereby the relevant features of the head are obliged to match those of the specifier. Within the context of negation, in Standard French, it could be assumed that both *ne* and *pas* bear the feature [+Neg], either inherently, as a lexical property, or by association, one with the other, as a consequence of dynamic agreement²³.

If this interpretation of spec-head agreement is correct, then the type of 'abstract' Negative Cycle referred to in section 2 above (see also footnote 8), whereby the locus of the abstract feature [+Neg] can fluctuate between Neg° and SpecNegP in the same way as the overt marker of negation, becomes unacceptable. Under this 'strong' interpretation of spec-head agreement, the Neg Criterion obliges *both* Neg° and SpecNegP to bear the same features, e.g. [+Neg]. It might be possible for one to bear a given feature underlyingly and for that feature to be shared with the other, as a consequence of dynamic agreement, in time for the Neg Criterion to come along and check that all is in order. Nevertheless, given that this must happen by LF, it will always be the case that, at the level at which scopal relations are relevant, both Neg° and SpecNegP always bear the same features, and no cross-linguistic variation is possible. Accordingly, if this interpretation of spec-head agreement is adopted, it will not be possible to relate NC to the Negative Cycle.

The 'strong' interpretation of spec-head agreement is, of course, not the only one available. I shall, in the course of the following discussion, argue that the 'strong' interpretation of spec-head agreement is too strong. Instead, I shall claim that, assuming that specifier and head are of the suitable type (guaranteed by (32a)), spec-head agreement is

²¹ As is the case in French, in spoken Breton, the preverbal negative marker, *ne*, is often omitted:
(i) 'ziskenn ket ar vugale betek an hent (Stephens (1993: 398))
(= text example (35a))

²² The notion of 'dynamic' agreement is due to Rizzi (1991).

²³ See Rowlett (in progress) for a review of arguments suggesting that French *ne* is not inherently negative and that, if *ne* is interpreted negatively at all, it is by association (spec-head agreement) with an inherently negative item such as *pas*.

more likely to be spec-head *anti-disagreement* guaranteeing feature compatibility. This 'weak' interpretation of spec-head agreement will be crucial for our purposes. Instead of obliging *both* specifier *and* head to bear the feature [+Neg], the Neg Criterion in (29) would only oblige them not to be incompatible with respect to the feature [\pm Neg]. So, as long as one is not specified [+Neg] while the other is specified [-Neg], for example, the Neg Criterion is not violated. Consequently, in a configuration in which the head bears the feature [+Neg] while the operator in specifier position doesn't (but isn't marked [-Neg] either), or vice versa²⁴, the Neg Criterion is not violated.

Furthermore, this 'weak' conception of the nature of spec-head agreement is still strong enough to account for the ungrammaticality of the following strings from Italian discussed by Belletti (1990: 41, (29c/d)):

- (36) a ★Maria *non* parlava *pur/ben* di lui
M. *non* spoke indeed of him
- b ★Maria *non* ha *pur/ben* parlato di lui
M. *non* has indeed spoken of him

Belletti (1990: 39), following Lonzi (1991), describes adverbs such as *pur/ben* 'indeed' as having 'the semantic function of reinforcing the assertive value of the sentence'. She concludes that they are the positive counterpart of negative (sentential) adverbs, and that, accordingly, they fill the specifier of a polarity phrase (such as the positive equivalent of NegP, or Σ P, following Laka (1990)). As such, these elements are likely to bear the feature [+Pos], or at least [-Neg], and will lead to ungrammaticality when appearing in the specifier position of a projection whose head is marked [+Neg], as in (36), since [+Neg] is incompatible with [-Neg]/[+Pos]. A mechanism of spec-head agreement which guarantees compatibility is adequate to rule out these structures; it is not necessary for spec-head agreement to pass on to the specifier features borne by the head.

Recent work by Lyons (1994) suggests that the 'weak' version of spec-head agreement is in fact empirically better motivated than the 'strong' one. He discusses data from Spanish in which subjects appear to disagree with the verb. In (37), for example, the subject is third person plural while the verb is first person plural.

- (37) *Spanish*:
- a Los estudiantes trabajamos mucho
The students work-1PL much
'We students work a lot.'

²⁴ This 'vice versa' is debatable. Given that the nature of a maximal projection is traditionally seen as being determined first and foremost by the features of its head, some might object to the suggestion in the text that the head of a NegP (or a negatively specified PolP/ Σ P) might not bear the feature [+Neg]. If this objection is well-founded, then the cross-linguistic variation in the 'abstract' Negative Cycle will clearly be more restricted than the cross-linguistic variation in Jespersen's 'overt' Negative Cycle. Neg° will, at the relevant level of representation, always be marked [+Neg]. However, it would still be possible for the features borne by the specifier to vary. That is to say, it would still be possible for the features of SpecNegP to be underspecified, i.e., not be marked [+Neg]. As the reader will discover, even this more restricted 'abstract' Negative Cycle is sufficiently flexible for the purposes of the account of NC put forward here.

- b Algunos estudiantes trabajamos mucho
Some students work-1PL much
'Some students (including me) work a lot.'

Finally, Plunkett (1994) argues that the 'weak' version of spec-head agreement is necessary in order to account for yes-no questions and for *wh*-questions in French.

Most significantly for my purposes, a weaker interpretation of spec-head agreement, in terms of a checking mechanism guaranteeing compatibility rather than obligatory dynamic agreement, makes it possible to account for the link between the Negative Cycle and NC, and it is to this that I turn in the next section.

6 Analysis

An analysis of *Jespersen's generalisation* will depend on an analysis of how NPIs are licensed in negative contexts. Various proposals are evaluated and modified in section 6.1. An analysis of *Jespersen's generalisation* itself is given in section 6.2. In section 6.3, I consider an apparent counterexample to *Jespersen's generalisation*, namely West Flemish (WF).

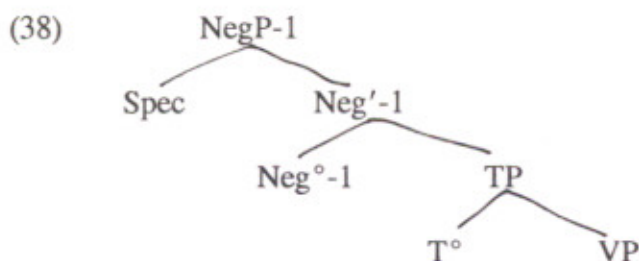
6.1 NPI licensing in negative contexts

In this section, I turn to possible analyses not just of NPI licensing in negative contexts in general but *Jespersen's generalisation* in particular. First, in section 6.1.1, I consider the approach adopted by Zanuttini (1991) which exploits Chomsky's (1986b) idea of L-marking. I will try to show that this approach, while theoretically interesting, is empirically inadequate. In section 6.1.2, I consider the more promising approach adopted by Progovac (1994, etc.) based on A'-binding. In section 6.1.3, I suggest important modifications to Progovac's A'-binding approach which, while exploiting her insight, have a number of empirical and theoretical advantages over her execution: in the first instance, the revised analysis is truer to the nature of A-binding; second, it makes it possible to account for *Jespersen's generalisation*. These advantages are explored in section 6.2.

6.1.1 Zanuttini (1991): L-marking

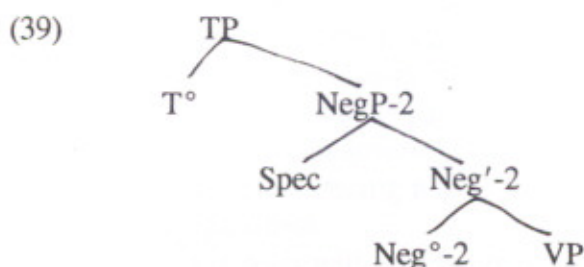
Jespersen's generalisation is taken up by Zanuttini (1991: chapter 5) within the framework of her account of NPI licensing in negative contexts. Zanuttini claims (1991: 151-2) that the co-occurrence of the preverbal negative marker (which she analyses as the head of NegP(-1), generated above TP) with postverbal negative quantifiers (n-words) is linked to the need for the latter to raise, at LF, to SpecNegP-1 (to satisfy the Neg Criterion), crossing TP as they go, which is a barrier²⁵ (Zanuttini (1991: section 5.3)). In this scenario, the function of an obligatorily lexically realised preverbal negative marker is to L-mark – and hence void the barrierhood of – the category it selects, TP, making LF movement of the negative quantifiers across TP into SpecNegP-1 licit, as illustrated in (38), adapted from Zanuttini (1991: 162):

²⁵ Zanuttini (1991: 159) claims that indicative TP is a barrier, but not infinitival or subjunctive TP. Further, she claims that the barrierhood of TP applies only to LF movement, and not to S-structure movement.



LF movement of negative quantifiers into SpecNegP-1 is motivated by the Neg Criterion in (29): negative operators such as Romance *n*-words must be in a spec-head configuration with a negative head, at LF at the latest.

In Zanuttini's analysis, *postverbal* markers of negation are associated with what she terms NegP-2, generated below TP, as in (39) (adapted from Zanuttini (1991: 163)), and do not therefore have the ability to L-mark TP. Consequently, NC is unavailable.



This analysis is problematic for a number of reasons. First, if on the one hand LF-raising of the negative quantifiers is to reach a specifier position with respect to the marker of negation, while on the other hand NegP-2 is below TP, then the raising movement would not need to cross TP anyway. Accordingly, the barrierhood or otherwise of TP should be irrelevant for the availability or otherwise of NC. NC should then be available in languages with *postverbal* negative markers in the same way as it appears to be possible in languages with *preverbal* negative markers, contrary to fact.

Second, given that *postverbal* markers of negation are thought to be XP constituents and, therefore, to be analysed either as adjuncts or, more probably, as specifiers, how could LF-raising (to SpecNegP) of a negative quantifier possibly be motivated by the Neg Criterion? Under the assumption that heads are obligatorily realised, then the Neg Criterion will be satisfied by the mere presence of the *postverbal* negative marker in SpecNegP-2. Negative quantifiers should then be allowed to remain *in situ* in SpecNegP-2, even at LF, contrary to fact.

Third, Belletti (1990; 1994) argues that there is, in Italian, a class of emphatic adverbs (such as *ben/pur* 'indeed'; see, for example, (36) above) which have the same distribution in positive clauses as adverbs such as *mai/più* 'never'/'no more' in negative clauses. Exploiting the parallel, Belletti terms these elements positive adverbs, and suggests that their matching distribution is due to the fact that they must raise into the specifier of PosP/ΣP, the positive counterpart of NegP(-1), presumably to satisfy a 'positive' version of the Neg Criterion²⁶. Unlike NegP(-1), PosP/ΣP does not have an overt head; presumably, TP is not

²⁶ Recall that the Neg Criterion and *wh*-criterion are construction-specific instantiations of the AFFECT criterion in (31).

L-marked by $\text{Pos}^\circ/\Sigma^\circ$, and therefore a barrier. Despite this, positive adverbs manage to move across TP to raise into SpecPosP. Why should this be possible for positive adverbs if it is impossible for negative adverbs? In defence of Zanuttini, it must be mentioned that she claims that TP is a barrier at LF only. Given that Belletti's positive adverbs raise at S-structure, Zanuttini might argue that TP is not a barrier for this movement anyway and therefore do not need to be 'debarrierised' by an overt Pos head. However, there are positive equivalents to the negative quantifiers, e.g., universal quantifiers, which remain *in situ* at S-structure. Under the assumption that these operators need to raise at LF for scope reasons, Zanuttini's account fails to predict their ungrammaticality. Why should multiple (positive) universal quantifiers be able to cross a non-L-marked TP at LF in order to raise into SpecPosP while negative quantifiers cannot?

Fourth, why it is the case that in SC (unlike in Italian) the need for the verb to appear with an overt negative marker is not sensitive to whether the verb is or is not preceded by a negative quantifier. Why should this be the case if, as Zanuttini argues, the overt nature of the negative marker is to L-mark TP? If Zanuttini's analysis is along the right lines, SC would be expected to pattern with Italian, contrary to fact. The obverse of this objection to Zanuttini's can be made with respect to WF. WF has an (optional) preverbal negative marker, *en*. Why should negative quantifiers in WF not be able to remain *in situ* at S-structure safe in the knowledge that Neg° will L-mark TP and allow LF-raising to SpecNegP, thus guaranteeing a concordant reading? Zanuttini's analysis singularly fails to answer these questions.

Fifth, languages with sturdy bipartite sentential negation, such as Standard French and Breton, present an interesting case for Zanuttini's analysis. According to Zanuttini (1991), Standard French *ne* heads NegP-1 while *pas* appears in SpecNegP-2. Analogous to Italian *non*, French *ne* presumably L-marks TP, voiding its barrierhood. LF movement of negative quantifiers across TP into SpecNegP-1 is, in principle, therefore, possible. Why then does French not have a set of negative quantifiers? Why can *pas* not co-occur with French NPIs such as *personne* and *jamais*? (See Rowlett (1994a).)

On the basis of these considerations, I reject Zanuttini's L-marking account of NC due to its empirical inadequacy. An alternative analysis of the NPI licensing involved in NC has been proposed by Ljiljana Progovac (1994, etc.). This approach is evaluated in the next section.

6.1.2 Progovac (1994, etc.): A'-binding

On the basis of distributional parallels between anaphors and pronominals, on the one hand, and polarity items, on the other, Progovac (1994, etc.) suggests that (A'-)Binding Theory (henceforth, BT) should be called upon to account for NPI licensing.

It is within this general framework that she analyses the *ni*-NPIs of SC as A'-anaphors which, just like A-anaphors, need to be bound within a given domain (Binding Theory Principle A). (It will be remembered that *ni*-NPIs, irrespective of their position in a clause, must be clausemate with the preverbal negative marker *ne*.) In the terminology of BT, the *ni*-NPIs need a local 'antecedent' in the same way that anaphoric elements do. Progovac says further that, in (40) for example, Principle A of BT is satisfied by virtue of the fact that the *ni*-NPI *ni(t)ko-ga* 'no-one' is A'-bound by [Neg *ne*], which Progovac considers a functional (A'-)head. The element *ne* functions as the A'-antecedent of the *ni*-NPI.

- (40) Mario ★(*ne*) vidi *ni(t)ko-ga*
 M. not sees no-one-ACC
 'M. can't see anyone.'

This analysis is compatible with the standard assumption (e.g., in Haegeman (forthcoming) and references therein) that polarity items are licensed by a c-commanding (negative or interrogative) element.

However, as Haegeman (forthcoming: ch. 2, fn. 3) points out, this standard assumption does not specify whether the c-commanding licenser of a polarity item should be a head or a maximal projection. Progovac clearly takes the former option with respect to the A'-binding of *ni*-NPIs in SC which, she argues, are bound by Neg°. Here, Progovac essentially follows the line of Aoun (1986: 136) who, for negation in Italian, suggests that postverbal negative quantifiers are A'-bound by preverbal *non*, their antecedent. Nevertheless, this is surprising given Progovac's more general objective, namely to subsume polarity item licensing under an A' version of BT. While Progovac's claim that the distribution of *ni*-NPIs and *i*-NPIs in SC patterns surprisingly closely with anaphors and pronominals seems convincing enough, it is odd that Progovac chooses to have *ni*-NPIs (XP constituents) obligatorily A'-bound by the head *ne*²⁷. This is not the way A-binding is generally thought to operate. On the contrary, A-binding is seen as one XP binding another XP, e.g., an overt antecedent binding an overt A-anaphor, as in (41a), or an overt NP binding its non-Case-marked trace (also assumed to be an A-anaphor) following NP-movement, as in (41b).

- (41) a Susan_i loves herself_i
 b John_i was killed t_i

Progovac's claim that *ni*-NPIs are A'-bound by Neg° is even more surprising in view of her Relativised Principle A of BT, given in (42):

- (42) *Relativised Principle A:*

A reflexive R must be bound in the domain D containing R and an *X-bar compatible* SUBJECT.

If R is an X° (morphologically simple) reflexive, then its SUBJECTs are X° categories only, i.e., Agr (as the only salient (c-commanding) head with pronominal features).

If R is an X^{max} (morphologically complex) reflexive, its SUBJECTs are X^{max} specifiers with pronominal features, thus SpecIP and SpecNP.

(Progovac (1994: 12, (60)), my emphasis)

Within the terms of (42), it should only be possible for an XP to A'-bind the morphologically complex *ni*-NPIs of SC. Although negative, NegP will not count as a suitable A'-binder given that it actually contains the NPIs. A potential A'-antecedent would be SpecNegP. In the following section, I propose that Progovac's Relativised Principle A of BT be respected and that we assume that A'-anaphors which are maximal projections can only be bound by antecedents which are maximal projections.

²⁷ Recall that Aoun was writing prior to the NegP hypothesis and the proposal of the Neg Criterion.

6.1.3 Modified version of NPI licensing in negative contexts by A'-binding analysis

In this section, I propose an account of NPI licensing in negative contexts which exploits the basic insight behind Progovac's (1994) analysis reviewed in the previous section. First, it exploits theoretical apparatus already available and well-motivated, namely (A'-)Binding Theory (BT). However, as will be shown below, the A'-binding account put forward here is arguably more faithful to the principles of A-binding than Progovac's analysis. Second, it accounts for *Jespersen's generalisation*. Third, it goes some way towards bringing natural language negation (back) into the sphere of the negation of (Boolean) logic. There is a tradition of observing that natural language negation (at least in NC languages) cannot be subsumed under logical negation; however, no convincing alternative has been proposed, suggesting (perhaps) that the realm of logic was where natural language negation belonged all along. Finally, it allows me to claim that inherently negative NPIs, i.e., negative quantifiers, are identical in the relevant syntactic respects cross-linguistically – despite their diverging distributions which can be attributed to a difference elsewhere in the grammar of the respective languages, namely their position in the Negative Cycle.

In order to make the A'-binding of NPIs parallel to the A-binding of anaphors, I would like to suggest that the Relativised Principle A of BT be respected. Consequently, if *ni*-NPIs in SC are indeed A'-anaphors, they will need to be locally A'-bound by an XP, not by a head. So what XP could the A'-binder be? The answer to this question comes from the Neg Criterion. Under the assumption that the negative sentence in (40) contains a NegP with a head bearing the feature [+Neg] and realised phonetically as *ne* (see section 4.1.1), the Neg Criterion obliges us to posit the presence of a polarity operator in SpecNegP. I would like to claim that it is this operator which A'-binds – and thus licenses – the *ni*-NPI in (40). In other words, the *ni*-NPI is in the scope of the operator in SpecNegP, its antecedent.

Following Progovac (1994), I assume that the fact that *ni*-NPIs are not licensed by superordinate negation or in non-negative polarity contexts is due to the fact that, in such contexts, *ni*-NPIs are not A'-bound in the domain, D, referred to in (42). Progovac takes this domain to be NegP (with possible extension to IP as a consequence of head-to-head movement of Neg° to I°). Crucially, the domain never extends as far as CP. Given that SpecCP is arguably the position occupied by a polarity operator in a non-negative polarity context, such as (43a), or in a clause embedded under matrix negation, such as (43b), this assumption is necessary to account for the ungrammatical status of the examples in (43).

- (43) a ★Sumnja-m [Op da Milan voli *ni(t)ko-ga*] (Progovac (1994: 64, (17)))
Doubt-1sg Op that M. loves no-one-ACC
'I doubt M. loves anyone.'
- b ★Milan *ne* tvrdi [Op da Marija poznaje *ni(t)ko-ga*] (Progovac (1994: 41, (111)))
Mi. *ne* claims Op that Ma. knows no-one-ACC
'Mi. isn't claiming that Ma. knows anyone.'

If the *ni*-NPIs are A'-bound at all in (43), they will be A'-bound by the contents of SpecPolP, i.e., the specifier of the Polarity Phrase, assumed to be present in all clauses.

The strings in (43) are grammatical if the *ni*-NPIs are replaced with *i*-NPIs. I follow Progovac in attributing this to the fact that, as 'pronominals', *i*-NPIs obey BT Principle B, and must therefore be A'-free in the domain D. Nevertheless, *i*-NPIs also need to obey a requirement that they be A'-bound somewhere in the sentence outside the domain D. Unlike

Progovac, though, I assume that an *i*-NPI, as a morphologically complex element, will also be bound by a maximal projection, such as Op in SpecCP in (43), rather than by a head.

6.2 Jespersen's generalisation

By adopting a 'weak' interpretation of spec-head agreement and an A'-binding approach to polarity item licensing in which NPIs can only be bound by XP operators, and not heads, we are now in a position to account for *Jespersen's generalisation*.

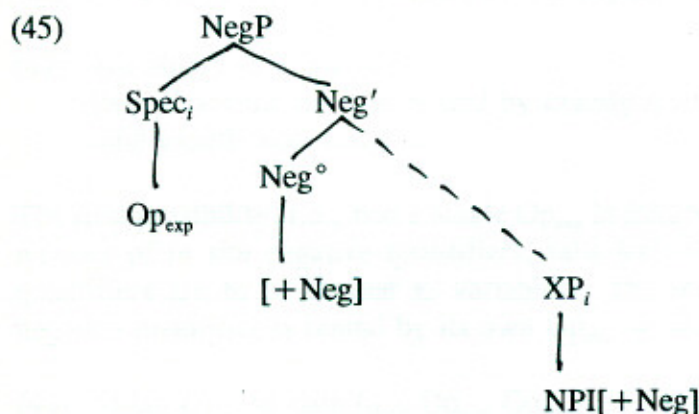
Assume that the (negative) polarity items referred to in the context of NC are inherently negative, i.e., they bear the feature [+Neg]. These are the *ni*-NPIs of SC, the *no*-NPIs of SE and what Zanuttini calls *n*-words in Romance languages such as Italian and Spanish (but, crucially, not French). As polarity items, these will need to be licensed – by virtue of A'-binding, by hypothesis.

6.2.1 Why NC languages are NC languages...

In the languages which demonstrate NC, it was argued above that [+Neg] is a feature only of Neg° underlyingly, i.e., not SpecNegP. While the Neg Criterion in (29) obliges us to posit the presence of an operator in SpecNegP, the 'weak' version of spec-head agreement adopted in section 5.2 above does not pass the feature [+Neg] on to the operator in SpecNegP. Accordingly, the operator can be assumed to be what Haegeman (forthcoming: chapter 4, section 1.5.2.2) terms an 'expletive' polarity operator (Op_{exp}). This expletive operator is what is responsible for A'-binding the inherently negative polarity items. Op_{exp} in SpecNegP (unselectively) A'-binds the [+Neg] polarity item *in situ*, creating a CHAIN.

This can be illustrated using the Italian example in (44). Neg° bears the feature [+Neg]. In accordance with the Neg Criterion, SpecNegP must be filled by a polarity operator, Op. 'Weak' spec-head agreement checks that SpecNegP and Neg° are compatible, but does not allow the [+Neg] feature to 'leak' from Neg° to SpecNegP. Op is therefore Op_{exp} in Haegeman's (forthcoming) notation. The NPI *nessuno* 'no-one' is an A'-anaphor and needs to be A'-bound by forming a representational CHAIN with an antecedent within NegP to be licensed, hence the coindexing. The antecedent, Op_{exp} , takes scope over the anaphor, the NPI.

- (44) Mario non ha visto nessuno
 M. not has seen no-one
 'M. hasn't seen anyone.'



Crucially, this does not produce a configuration in which a [+Neg] operator binds a [+Neg]

anaphor. This is a welcome result since it provides an explanation for why the two occurrences of [+Neg] in (45) do not interfere with each other and do not cancel each other out. One of the [+Neg] elements is a syntactic head, the other is a maximal projection and the two do not interfere with each other. (The notion of heads and maximal projections not interfering with each other is, of course, not new. Within the context of movement, the two are usually regarded as separate and independent.) Consequently, it brings natural language negation closer to logical negation. The interpretation of (44) is not one of double negation (DN) since, in (45), no negative constituent takes scope over any other negative constituent. Note that if we had maintained the 'strong' interpretation of spec-head agreement, we would have had to assume that the polarity operator in SpecNegP in (45), Op, was what Haegeman (forthcoming: chapter 4, section 1.5.2.2) terms a 'contentive' operator, i.e., positively specified for the feature [Neg] (as a consequence of being in a spec-head configuration with a [+Neg] head). Consequently, the explanation for NC within logical negation would have been lost.

Before turning to non-NC languages, I turn to the possibility, in NC languages, of multiple negative quantifiers co-occurring with a concordant reading, i.e., van der Wouden's (1994: 95) 'negative spread'. Here, I discuss two possible approaches to how it is that, in these languages, the [+Neg] features of multiply-occurring negative quantifiers do not cancel each other out in structures such as (17) above, repeated as (46) below:

- (46) SC:
 Milan *ne daje ni(t)kome ništa*
 M. not gives no-one nothing
 'M. isn't giving anything to anyone.'

The first possibility is to assume that the structure of (46) is essentially identical to the structure in (45) above, the only difference being that two *ni*-NPIs appear in the lower portion of the tree, bound by the single Op_{exp} in SpecNegP. This mechanism can then license an unlimited number of *ni*-NPIs within the (same) clause, i.e., provided, in the case of SC, that no CP node intervenes between Op_{exp} and the *ni*-NPI. This is the approach adopted by Suñer (1993) and Acquaviva (1993): a single operator is associated with all postverbal negative quantifiers by some form of unselective binding. (See also Haegeman (forthcoming: chapter 4, section 3.1.3.2) for discussion.)

This possibility is, however, not without its problems, e.g., with respect to the Bijection Principle in (47), proposed by Koopman & Sportiche (1982):

- (47) *The Bijection Principle:*
 Every variable must be bound by exactly one operator and every operator must bind exactly one variable.

The first possibility, i.e., that a single Op_{exp} in SpecNegP can A'-bind a potentially unlimited number of *in situ* negative quantifiers, falls foul of the Bijection Principle if the negative quantifiers are to be classed as variables. The second possibility is to assume that each negative quantifier is bound by its own Op_{exp}, as in (48).

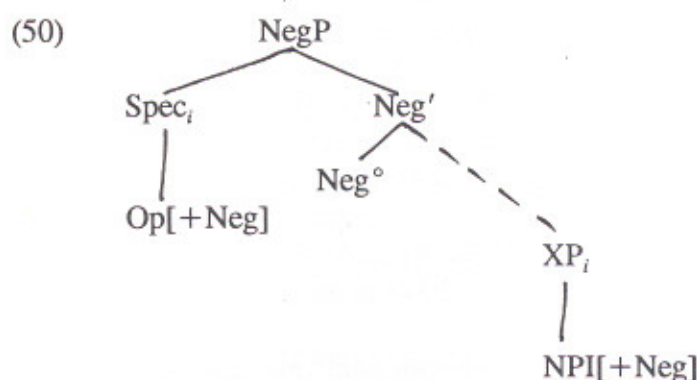
- (48) Milan [AgrS' *ne daje* [NegP Op_{exp_i} Op_{exp_j} ... *ni(t)kome_i ništa_j*]]

An approach similar to this is adopted by Brody (1993) for the relationship between null *wh*-operators and overt *wh*-phrases *in situ*; Haegeman applies the same approach, albeit tentatively, to negative structures (forthcoming: chapter 4, section 3.1.3.2).

6.2.2 ...and why non-NC languages are not

So much for NC languages. In non-NC languages like SE in which the feature [+Neg] is borne by the operator in SpecNegP, the situation is necessarily different. Here, the co-occurrence of the marker of pure sentential negation with a negative quantifier leads to DN, as in (49):

(49) I've not seen nothing DN

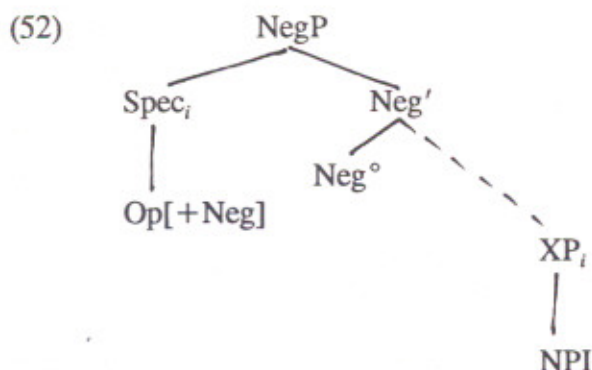


In contrast to the scenario sketched in the previous section, this produces a configuration in which a [+Neg] operator (the antecedent) binds and therefore takes scope over a [+Neg] variable (the anaphor). The fact that such structures are impossible (with the relevant NC interpretation) is predicted by the analysis proposed here, and supports the claim that natural language negation is closer to logical negation than is sometimes assumed. As predicted by Boolean logic, where one [+Neg] element takes scope over another [+Neg] element (e.g., by binding), the two instances of negation cancel each other out, producing DN, as in (49)/(50).

This analysis also allows us to conclude that there are no relevant differences between the sets of inherently negative polarity items (negative quantifiers) across languages – a desirable result. The *ni*-NPIs of SC, the *no*-NPIs of English and Zanuttini's *n*-words in Romance are all essentially identical. Their different distributions can be attributed to the fact that the languages in which they appear stand at different points in the Negative Cycle, i.e., that these languages vary with respect to whether SpecNegP is marked [+Neg].

SE adopts one of two possible strategies to avoid DN in the context of indefinite quantifiers. The first is to use NPIs which are not inherently negative and which will not, therefore, cancel out the negative force of the negative operator in SpecNegP. The NPIs concerned are the *any*-NPIs:

(51) I've not seen anything



In (52), the *in situ* NPI (A'-bound by the operator in SpecNegP) is not inherently negative. DN is thus avoided since one negative element is not in the scope of another. Furthermore, I would argue that the configuration in (52) is also the one found in Modern French. Here, Op[+Neg] is phonologically null (but syntactically active) and the *personne*, *rien*, *jamais*, etc., series of quantifiers are NPIs like the *any*-NPIs of English: they need to be A'-bound by a certain kind of operator to be licensed, but are not themselves inherently negative. (See Rowlett (1994a; to appear).)

So what of multiply-occurring NPIs licensed by a single instance of sentential negation in non-NC languages, as in (53)?

(53) I've not seen *anything anywhere*

In section 6.2.1 above, I discussed multiply-occurring negative quantifiers in NC languages. There, two possible analyses were discussed. The first possibility was for all postverbal negative quantifiers to be licensed by unselective A'-binding from a *single* Op_{exp} in SpecNegP. The second possibility was for each postverbal negative quantifier to be associated with its own Op_{exp} in SpecNegP. Similarly, there are two possible approaches to the licensing of multiple NPIs licensed by a single instance of sentential negation as in (53). Either we assume that each and every NPI is licensed by association (unselective A'-binding) with a *single* contentive operator, Op_{cont}, in SpecNegP, i.e., one which bears the feature [+Neg], or we assume that each and every NPI is licensed by association with its own Op_{cont}.

The second (more marked) strategy adopted by SE to avoid DN in the context of indefinite quantifiers is to avoid overtly marking the verb negative. In (54), the internal argument of the verb is an (inherently) negative quantifier, while the verb itself is not marked negative:

(54) I have seen nothing

Two possible analyses come to mind for (54). In the first instance, it could be assumed that the negative quantifier is bound by an expletive polarity operator in SpecNegP. Second, it could be claimed that SpecNegP is empty at S-structure, and that the negative quantifier must raise into SpecNegP at LF by means of a 'negative' equivalent of QR (see Moritz & Valois (1994) for similar proposals for French). Alternatively, both analyses might be allowed. Although this would be a weak theory, it is a possibility supported by the following observation. The two possibilities make predictions with respect to possible tag questions. In (55), the tag questions have to have the opposite polarity to the 'antecedent':

- (55) a You like squid, don't you?/*do you?
 b You don't like squid, *don't you?/do you?

Where the 'antecedent' has a structure along the lines of (54), both polarities are possible in the tag²⁸:

- (56) a You've done nothing all day, haven't you?
 b You've done nothing all day, have you?

How can this choice be accounted for? On the face of it, it looks like the 'antecedent' in the (56) can be seen as *either* negative *or* positive. This could be taken to be the consequence of the two possible ways of deriving the clause. If the negative quantifier is bound by an expletive operator in SpecNegP, the clause will be positive (or, at least, non-negative) and the negative tag will be licensed: (56a). If, alternatively, the negative quantifier raises into SpecNegP at LF, the clause will be negative, and the positive tag will be licensed: (56b).

6.3 WF: a counterexample to Jespersen's generalisation?

At first sight, the data presented below suggest that *Jespersen's generalisation* falls down in the case of WF. In section 6.3.1, I present the data; in section 6.3.2, I suggest an analysis, following Haegeman (forthcoming), which somewhat weakens the status of WF as a counterexample.

6.3.1 The data

In some ways, sentential negation in WF is similar to French: like French *ne*, the (optional) preverbal (Neg°) *en* is insufficient to mark sentential negation on its own (cf. (57)) and must co-occur with a negative constituent, either the negative adverb *nie* 'not', equivalent to French *pas*, (cf. (58)) or some other negative element (cf. (59))²⁹:

- (57) *da Valère dienen boek *en*-eet (Zanuttini (1991: 170, (278)))
 that V. that book *en*-has
- (58) da Valère dienen boek *nie* (*en*-)eet (Zanuttini (1991: 171, (279a)))
 that V. that book not *en*-has
 '...that V. doesn't have that book.'
- (59) a da Valère ier *niemand* (*en*-)kent (Haegeman (forthcoming: ch. 3, section 2))
 that V. here no-one *en*-knows
 '...that V. doesn't know anyone here.'

²⁸ The judgements given here are from my own idiolect. They may not be shared by other speakers. However, I believe that, generally, speakers are less likely to reject the two possibilities in (56) than they are to reject the starred strings in (55).

²⁹ The data from WF are given in the context of embedded clauses to compensate for V2 effects.

- b da Valère dienen boek *nieverst* (*en-*)vindt (Zanuttini (1991: 171, (280b)))
that V. that book nowhere *en*-finds
'...that V. doesn't find that book anywhere.'
- c da Valère *geen geld* (*en-*)eet (Zanuttini (1991: 171, (281a)))
that V. no money *en*-has
'...that V. has no money.'

On the basis of this data, we would want to conclude that, in WF, like French and SE, the abstract feature [+Neg] is borne by SpecNegP, and we would expect WF to pattern with the languages discussed in section 4.2 above. That is to say, we would not expect WF to be a non-NC language.

However, unlike in Standard Dutch, negative quantifiers can co-occur in WF, without cancelling each other out, as in (60), taken from Haegeman (forthcoming: ch. 3, section 2.2.2):

- (60) a da Valère [*an niemand*] [*niets*] gezeid (*en-*)oat
that V. to no-one nothing said *en*-had
'...that V. hadn't said anything to anyone.'
- b da Valère [*nooit*] [*an geen mens*] [*niets*] gezeid (*en-*)oat
that V. never to no person nothing said *en*-had
'...that V. had never said anything to anyone.'
- c da Valère [*nooit*] [*van niemand*] ketent (*en-*)was
that V. never of no-one contented *en*-was
'...that V. was never pleased with anyone.'

The data in (60) are crucially different from their equivalents in French containing the likes of *rien*, *personne* and *jamais*. The 'negatives' co-occurring with each other and, optionally, with *en* are clearly inherently negative: these constituents are negative quantifiers and not any-type NPIs.

Furthermore, the negative adverb *nie* can co-occur with negative quantifiers, again without the negation being cancelled, as in (61), taken from Haegeman (forthcoming: ch. 3, section 2.2.2):

- (61) a da Valère [*an niemand*] [*niets*] [*nie*] gezeid (*en-*)oat
that V. to no-one nothing not said *en*-had
(= (60a))
- b da Valère [*nooit*] [*an geen mens*] [*niets*] [*nie*] gezeid (*en-*)oat
that V. never to no person nothing not said *en*-had
(= (60b))
- c da Valère [*nooit*] [*van niemand*] [*nie*] ketent (*en-*)was
that V. never of no-one not contented *en*-was
(= (60c))

At first sight, then, WF appears to be a counterexample to *Jespersen's generalisation*. The crucial negative marker, *nie*, is generated under or moved to SpecNegP (see the discussion of French *pas* in section 2) and, although *en* exists in WF as a preverbal negative marker associated with Neg°, its status seems comparable with that of *ne* in French. In WF, then, the feature [+Neg] seems to be associated with SpecNegP. Nevertheless, WF is an NC language, contra (13). On closer analysis, however, it can be seen that there are important ordering restrictions affecting NC in WF. These will be discussed in section 6.3.2 together with an analysis.

6.3.2 The analysis

In section 6.3.1 above, data from WF was presented which suggested this language might be a counterexample to *Jespersen's generalisation*³⁰. On the basis of (57) and (58), I assumed that, in WF, the feature [+Neg] is borne by SpecNegP. Accordingly, WF is expected to be a non-NC language. The data in (60) and (61) show that this cannot be true. In (60) and (61), negative quantifiers, e.g., *niemand* 'no-one', *niets* 'nothing', *nooit* 'never', *nieverst* 'nowhere', co-occur, not only with each other, but also with the negative adverb, *nie* 'not'. Is it possible to square these data from WF with *Jespersen's generalisation*? In this section, I shall show that there are a number of restrictions on NC in WF.

For the concordant reading to be available, the negative quantifiers must scramble leftwards out of their base position. Following Haegeman (forthcoming), I shall analyse this leftward scrambling as raising into SpecNegP and conclude that, for independent reasons, WF is able to exploit this mechanism in order to circumvent DN. This overt operation on negative constituents produces 'negative absorption' (along the lines of *wh*-absorption) and leads to the observed concordant readings. The negative constituents associated with SpecNegP at S-structure are thus treated as a single negative constituent. Consequently, while, on the surface of it, WF is indeed an exception to the generalisation, the analysis presented in section 6.2 above holds.

In Haegeman's account of this negative absorption (forthcoming: ch. 3, section 2.1.1), she assumes that the WF negative adverb *nie* 'not' has a fixed (S-structure) position, i.e., SpecNegP. This is a reasonable assumption to make, and is supported by Rowlett's (1993a) analysis of (the derivation of) French *pas*. Irrespective of whether the traditional SOV West Germanic languages such as WF are head-final or head-initial (cf. the Universal Base Hypothesis proposed by Kayne (1993) and implemented for Standard Dutch by Zwart (1993)), the position of phrasal constituents with respect to *nie* will provide a diagnostic for whether their structural position is above or below NegP. Material preceding *nie* is either in SpecNegP as well, or above a minimal NegP; material following *nie* is contained within Neg'.

If a negative quantifier appears in a negative clause, i.e., with sentential scope, it must scramble out of its base position, unlike non-negative equivalents which are not obliged to do so. Thus, in (62), the non-negative complement of the adjective *kan*, but does not need to, scramble out of its AP because it does not contain a negative quantifier with sentential scope (data from Haegeman (forthcoming: ch. 3, section 2.1.3)):

³⁰ I am grateful to Liliane Haegeman for helpful discussion of the analysis put forward in this section. However, she cannot be held responsible for the suggestions I make here.

- (62) a da Valère [_{AP} ketent mit zenen kado] was
that V. contented with his present was
'...that V. was satisfied with his present.'
- b da Valère [_{PP} me zenen kado] [_{AP} ketent *t*] was
that V. with his present contented was
(= (62a))

In (63), in contrast, where the complement of the adjective contains a negative quantifier, the PP has to scramble out of its containing AP in order for the negative to take sentential scope, hence the ungrammaticality of (63a)³¹:

- (63) a ★da Valère [_{AP} ketent me niets] (*en-*)was
that V. contented with nothing *en*-was
- b da Valère [_{PP} me niets] [_{AP} ketent *t*] *en*-was
that V. with nothing contented *en*-was
'...that V. wasn't satisfied with anything.'

Consider the interpretation of the strings in (64), taken from Haegeman (forthcoming: ch. 3, section 2.2.1):

- (64) a da Valère [_{PP} van niemand] nie [_{AP} ketent *t*] *en*-was NC
that V. of no-one not contented *en*-was
'...that V. wasn't pleased with anyone.'
- b da Valère nie [_{AP} ketent [_{PP} van niemand]] *en*-was DN
- c da Valère nie [_{PP} van niemand] [_{AP} ketent *t*] *en*-was DN
- b & c: '...that V. was not pleased with no-one.'

Given the presence of *nie* in SpecNegP in the strings in (64), the clauses are interpreted as negative and preverbal *en* is licensed. Given the interpretation of (64b/c), i.e., the unavailability of NC, Haegeman concludes that the configurational constraints on NC in WF (cf. the interpretation of (60) and (61)) amount to a need for negative constituents to be associated with SpecNegP for a concordant reading to be available. The string in (64a) respects this constraint and NC is licensed, while the strings in (64b/c) do not, leading to a DN interpretation. WF is therefore not as free an NC language as might first have been suspected. In fact, the S-structure representations produced involve negative absorption in association with SpecNegP. Given that all these negative XPs are associated with the same position, the issue of concordance and, hence, NC arguably does not arise.

³¹ If the preverbal negative marker *en* is omitted, (63a) is not, in fact, ungrammatical as such. Rather, the negative constituent fails to achieve sentential scope as a consequence of not having scrambling out of its containing AP. Haegeman suggests that (63a) would then be interpreted as meaning that *Valère* is very hard to please. With preverbal *en* in place, (63a) is indeed ungrammatical since failure of the negative constituent to raise to SpecNegP fails, in turn, to license *en*.

7 Discussion and Summary

7.1 Discussion

The analysis proposed in this article has relied crucially on what I have termed a 'weak' interpretation of the relationship between a head and its specifier, i.e., in terms of compatibility rather than agreement. This interpretation of the spec-head relationship is supported by independent work by Lyons (1994) and Plunkett (1994), as discussed above. According to this interpretation, where a head bears relevant features underlyingly, its specifier is prevented from bearing incompatible features, but does not have to bear identical features.

Of course, given that natural languages can be distinguished in terms of other parameters too, the question arises as to whether this innovation within the theory, if justified, can be used to explain distinctive features of natural languages other than the NC vs. non-NC distinction discussed here. For example, some languages are thought to be head-initial, while others are head-final. Is it possible that the 'weak' interpretation of spec-head agreement could be used as a basis for accounting for this distinction?

One parameter which has received considerable attention over the last decade is the pro-drop or null subject parameter. Could this distinction between types of languages be accounted for on the basis of the innovative 'weak' interpretation of the spec-head relation suggested here? The fact that pro-drop is subject to cyclic diachronic patterns similar to Jespersen's negative cycle suggests that this could well turn out to be a fruitful line of enquiry, and it is one which I would like to at least scratch the surface of here.

Pro-drop is often viewed as parametric variation in the (morphological) 'strength' of AgrS°. Languages in which AgrS° is morphologically strong are pro-drop; languages in which AgrS° is morphologically weak are not. The question I would like to investigate is the extent to which the pro-drop vs. non-pro-drop distinction can be accounted for using the same theoretical approach as the NC vs. non-NC distinction discussed here, i.e., in terms of cyclic fluctuation between AgrS° and SpecAgrSP of some abstract feature or features.

Remember that the 'abstract' Negative Cycle was analysed in terms of the feature [+Neg] being borne underlyingly either by Neg° or SpecNegP or both. Consider, in this respect, the following idea from Haegeman (1991: 16)³²:

- (65) We might propose that in languages with NC readings the head of NegP is 'strong': it is autonomously licensed: it has its NEG feature in the base. [...] In non-NC languages, on the other hand, Neg is 'weak' and would be assigned the NEG feature by its specifier by virtue of spec-head agreement. [...] What is crucial for NC [...] is that the NEG feature on Neg° is independently licensed, i.e., that Neg° is a strong head. In languages where the NEG feature on Neg° can only be achieved via dynamic agreement the negative head is not strong and NC is not possible [...].

One conclusion which it might be possible to draw is that the 'strong vs. weak AgrS°' distinction and, hence, the pro-drop parameter could be due to (cyclic) fluctuation of the underlying position of some agreement feature, which we might label [Agr]. Thus, in pro-

³² I am grateful to Michel DeGraff for bringing this to my attention. Note that, if Haegeman is right, she would predict that French is a non-NC language, as argued in section 4.2.1 above.

drop languages, it could be argued that AgrS° bears the feature [Agr] as an inherent or underlying property. This would correspond to 'strong AgrS°'. Significantly, AgrS° is not reliant upon its specifier for the [Agr] feature, hence, arguably, the null-subject nature of the language. In contrast, in non-pro-drop languages, this feature would be borne by SpecAgrSP underlyingly. In this second scenario, the AgrS head would only bear the feature by association with its specifier, courtesy of the 'weak' version of spec-head agreement proposed above. This would then correspond to 'weak AgrS°'. In order to get the [Agr] feature, the AgrS head relies on its relationship with its specifier. Consequently, subjects cannot be omitted. Cyclic diachronic fluctuation between pro-drop and non-pro-drop could then be argued to be the result of an (abstract) 'Agreement Cycle' running alongside the familiar Negative Cycle. It seems to me that this is a potentially fruitful line of enquiry which deserves attention.

Conjecturing further, if such a line of enquiry proved fruitful, it would then remain to be determined whether the 'Agreement Cycle' were related in any way to the 'Negative Cycle'. The null hypothesis to be investigated empirically would be that the two are one and the same, i.e., that the locus of the abstract [Agr] and [Neg] features are determined by a single parameter, and that it is this single parameter which is subject to cyclic fluctuation. If this were the case, there would, presumably, be a correlation between pro-drop and NC, i.e., pro-drop languages would be NC languages; non-pro-drop languages would be non-NC languages. It is interesting to note the correlation between NC and pro-drop in this respect. SC, Italian, Spanish, Portuguese, Catalan, C17Fr and Berber are all NC and pro-drop; SE, German, Dutch and Modern French are neither NC nor pro-drop. Of course, this may be just coincidence, and a large number of other languages would need to be considered before it would be possible to determine whether the correlation is a robust one. DeGraff (1993b) argues that, in Haitian Creole, the negative marker [pa] has been grammaticalised as a (functional) head. If this means that the feature [+Neg] is borne by Neg° rather than SpecNegP, we would predict that Haitian Creole is a pro-drop language. DeGraff (1993a) argues that this prediction is in fact borne out. In fact, the only problematic language discussed here is Cockney which is NC but which does not immediately look like pro-drop.

Particularly significant evidence to support a link between NC and pro-drop would be diachronic data suggesting, for example, that the loss of pro-drop coincides with the loss of NC (and vice versa). One language to test here could be French. Modern French is neither pro-drop nor NC, while at earlier stages in its development, the language was both pro-drop and NC. What is significant is the fact that the change from NC to non-NC coincided with the change from pro-drop to non-pro-drop. Both changes appear to have taken place during the seventeenth century. Haase notes that, at the beginning of the century, null subjects were common. Furthermore, the negative adverb *pas* could co-occur not only with *ne* but also the 'negatives' *rien*, *personne* and *jamais*, etc. (See the data in (23).) By the end of the seventeenth century, null subjects were much rarer, as was the co-occurrence of *pas* the 'negatives'.

- (66) Cet emploi du verbe avec ou sans pronom, assez fréquent chez les écrivains du XVI^e siècle, apparaît quelquefois au XVII^e. (Haase (1969: 4, §3))
(This use of the verb with or without a [subject] pronoun, which was quite common amongst writers in the sixteenth century, is sometimes found in the seventeenth century.)

- (67) L'ancienne langue n'exprimait pas toujours les nominatifs des pronoms atones, sujets du verbe; l'usage de les exprimer ne s'établit que peu à peu à une époque ultérieure. Au XVI^e siècle on les omet encore couramment, tandis qu'au XVII^e siècle, sauf quelques exceptions, l'emploi en est presque général. (Haase (1969: 13, §8))

(In Old French, unstressed subject pronouns were not always pronounced. They only gradually became compulsory at a later stage. In the sixteenth century, it was still usual to omit them, whereas in the seventeenth century, one or two exceptions notwithstanding, they are almost always pronounced.)

- (68) Les règles qui aujourd'hui encore gouvernent la négation s'établissent au XVII^e siècle, et si, au début, les exceptions sont encore fréquentes, elles disparaissent à la fin du siècle. (Haase (1969: 250, §100))

(The rules governing negation even in the modern language became established during the seventeenth century. While exceptions were still frequent in the early part of the century, they had disappeared by the end.)

While hardly conclusive, this is important evidence suggesting, not only that the mechanism responsible for the Negative Cycle is also at work in the case of pro-drop, but also that the two parameters might in fact be the one and the same. Given that the case of Cockney suggests that the correlation between pro-drop and NC is not as straightforward as it might be, it might be necessary to differentiate between types of pro-drop, e.g., distinguishing between expletive and referential pro-drop (Liliane Haegeman, pc).

An alternative approach could be envisaged along similar lines to the one proposed in Beukema (1994). Instead of assuming that the strength/weakness of AgrS° (Infl, in Beukema's terms) and Neg° is determined by one and the same parameter, Beukema suggests that the two distinct parameters are involved. However, he proposes that some sort of 'regularity' maxim within UG will view a mismatch between the two with disapproval, as it were. Consequently, a grammar in which the values of the Neg and AgrS parameters do not match will be unstable. Beukema suggests that the early demise of grammars which appear to represent such mismatchings in the history of English and the acquisition of French is evidence in favour of such an approach. I refer the reader to Beukema's own work for further details. (See also Bennis, Beukema & den Dikken (1995).)

This issue aside, the discussion has left a number of questions unanswered. First, what is it about WF which permits negative absorption? Why do Standard Dutch and Standard German not? Second, although SC and Italian/Spanish were grouped together as NC languages, in SC, preverbal *ne* is obligatory with preverbal negative quantifiers while in Italian and Spanish preverbal *non/no* is generally ungrammatical in such contexts. Why should this be so? These and many other issues will unfortunately have to stay on the research agenda for the time being.

7.2 Summary

In the course of the preceding sections it was suggested that the fluctuation observed by Jespersen and referred to as the Negative Cycle amounts to cyclic to-ing and fro-ing of the overt realisation of sentential negation between the head and specifier of NegP. It was further suggested that the abstract realisation of sentential negation, i.e., the locus of the feature [+Neg], could also fluctuate in a similar, if not the same cyclic fashion (see footnote 24), and that this abstract cycle was possibly in the shadow, as it were, of the overt cycle.

This conclusion led us to reconsider the nature of the spec-head agreement explicitly referred to in the Neg Criterion. Instead of assuming that spec-head agreement amounts to a dynamic process guaranteeing that the relevant features borne by both specifier and head have the same values, it was suggested that spec-head agreement should instead be interpreted as nothing more than a checking process which makes sure that feature incompatibility is excluded. While this interpretation of spec-head agreement did not exclude the possibility, within NegP, of both SpecNegP and Neg° being positively specified for the feature [Neg], it did make it possible to satisfy the Neg Criterion without specifier *and* head necessarily *both* bearing the feature [+Neg]. The importance of this move for our purposes was that it allowed the Neg Criterion to be satisfied without SpecNegP necessarily bearing the feature [+Neg].

The cross-linguistic variation that this then allowed for itself paved the way forward to an account of the (im)possibility of NC. In some languages, SpecNegP is specified [+Neg]; in others, it isn't. The empirical observation to be accounted for is that NC is impossible in the first group of languages, possible in the second. The account provided for this generalisation was a modified version of Progovac's (1994) analysis of polarity item licensing, itself based on A'-binding. In the implementation proposed, inherently negative polarity items are seen as A'-anaphors which need, following Principle A of BT, to be bound within a given domain. It is assumed, with Progovac, that the relevant domain is NegP, with possible extension to IP. Capitalising on Progovac's Generalised Principle A of BT which guarantees that binders are X-bar compatible with bindees, it is concluded that the A'-binder of inherently negative polarity items is the polarity operator in SpecNegP, whose position there is guaranteed by the Neg Criterion. So much for NC languages. In non-NC languages, i.e., languages in which SpecNegP is specified [+Neg], co-occurrence of a negative marker and a negative quantifier leads to DN because the former has scope over the latter.

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