

# The Nanosyntax of French Negation: A Diachronic Perspective\*

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## 1. Introduction

In this paper I propose a nanosyntactic account for French negation in what is referred to as *le bon usage*<sup>1</sup> French (Grevisse and Goosse [1936] 1993, Rooryck 2010) and in colloquial French, two stages still present in French today. Whereas *ne* and *pas* are both obligatorily present in *le bon usage* French to express sentence negation, as in (1a), it is optional or lost in colloquial French, illustrated in (1b).

- (1)        a. Je    n' ai        pas        faim.  
              I    NEG        have    NEG    hunger  
              'I'm not hungry.'
- b. J'    ai        pas        faim.  
              I    have NEG    hunger  
              'I'm not hungry.'

The usage of *ne . . . pas* in *le bon usage* French is known as bipartite, embracing or discontinuous negation. The term bipartite negation as it is used in this paper does not refer to

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<sup>1</sup> With the term *le bon usage* French I refer to the written literary form of French described in the prescriptive grammar by Grevisse ([1936] 1993). Rooryck (2010) states that *le bon usage* French is a form of French that was spoken by the middle and upper class between 1840 and 1960. In *le bon usage* French standard clausal negation is expressed by means of the bipartite structure, *ne...pas*, which was the regular way to negate a clause from the 17<sup>th</sup> century onwards and is still a common way to negate a clause (Hansen 2013: 63).

the co-occurrence of a negative marker and one or more negative indefinites or negative polarity items, as in (2).

- (2) Je ne veux PAS que PERSONNE vienne.  
I NEG want NEG that personne come-SUBJ  
'I don't want anyone to come.' (Kayne 1984:40)

The analysis proposed in this paper captures the obligatory presence of *ne* and *pas* for the expression of sentence negation in *le bon usage* French, but will not deal with negative arguments (such as *rien* 'nothing', *aucun* 'no', *personne* 'no-one') or temporal adverbs (*jamais* 'never'). The core issue that I address is the fact that both *ne* and *pas* seem to convey negation and yet the fact that they co-occur does not lead to a double negation effect. Whilst the inherent negativity of *pas* is evident from the fact that *ne* can be deleted without losing negative meaning, the inherent negativity of *ne* is less immediately obvious. However, a clear example showing the inherent negativity of *ne* comes from the obligatory presence of *ne* with *plus* to express negative meaning in (3).

- (3) Julie \*(ne) boit plus.  
Julie ne drinks more  
'Julie no longer drinks.'

One way to account for the fact that *ne* and *pas* both convey negation without leading to a double negation effect is by means of an asymmetric approach: either only *pas* is inherently negative and *ne* becomes negative via Dynamic Agree (Rowlett 1998:28), or Agree (Roberts and Roussou 2003:154-155, Roberts 2007: 64-81), or *pas* is only semantically negative and *ne* is an NPI (Zeijlstra 2009). An immediate problem with respect to the latter approach is that if *ne* were an NPI, then its obligatory presence in data like (3) remains unexplained.

Whereas nothing in the current asymmetric approaches forces *ne* to be present for the expression of sentential negation, i.e. its presence is stipulated, the proposal developed in this paper manages to capture the difference between *ne* and *pas* and accounts for its obligatory co-occurrence in *le bon usage* French. Two crucial ingredients of the present proposal are first of all that the expression of negation is featurally complex and second, that the presence of *ne*

follows from the syntactic structure of the lexical items involved in the expression of sentential negation.

In the present proposal the difference between *ne* and *pas* in *le bon usage* French thus boils down to a structural difference: *ne* consists of only one feature or syntactic layer, a polarity feature, whereas *pas* consists of four features, focus, degree, quantity and proper negation. Only the combination of these four features can yield what is conceived of as sentential negation. With respect to colloquial French this analysis involves that at some point the syntactic structure of *pas* encoded in a post-syntactic lexicon started spelling out five features, thus making *ne* redundant for the expression of sentential negation.

Given that the use of negative markers in *le bon usage* French and colloquial French represents two important and well-described stages in what is referred to as Jespersen's Cycle (Dahl 1979) this account is also relevant from a diachronic perspective. I shall therefore discuss and analyse these diachronic changes in terms of my proposal.

The outline of this chapter is as follows. First, I explain briefly what Jespersen's Cycle is and in what way the use of negative markers in present-day French is important from a diachronic perspective as well. Second, I demonstrate how I classified negative markers in four different groups. Third, I discuss the nanosyntactic framework I used. Fourth, I apply the system to negation in *le bon usage* and colloquial French, and then I conclude.

## 2. Jespersen's Cycle

The bipartite pattern displayed in *le bon usage* French can be explained as a well-known development of the expression of sentential negation referred to as Jespersen's Cycle. The term Jespersen's Cycle was first used by Dahl (1979) to refer to the evolution described by Jespersen (1917:4):

The history of negative expressions in various languages makes us witness the following curious fluctuation: the original negative adverb is first weakened, then found insufficient and therefore strengthened, generally through some additional word, and this in its turn may be felt as the negative proper and may then in course of time be subject to the same development as the original word.

The evolution of negative markers has since then often been represented by means of three stages:

- (4)
- a. Stage I: Preverbal expression of sentential negation.
  - b. Stage II: Discontinuous expression of sentential negation.
  - c. Stage III: Postverbal expression of sentential negation.

(De Swart 2010:114)

In general we can say that the preverbal negator in Stage I gets strengthened at some point by an emphatic element, which leads to the development of bipartite negation or Stage II once the emphazier gets semantically bleached and becomes a regular negator. The preverbal element then disappears due to the presence of this new negator and gets lost, thus entering Stage III (Willis et al 2013: 6-7).<sup>2</sup>

The three-way split, as in (4), is a simplification for French, because there are intermediate stages in which change is taking place (Rowlett 1998: 96, Zeijlstra 2004: 56, Van der Auwera 2009, Breitbarth and Haegeman 2010), and in which one of the two elements turns out to be optional. Therefore, it has been proposed, depending on the language under consideration, that there are five or more stages (cf. Van der Auwera 2009 for an overview) or intermediate stages (Willis 2011). In (5) the different stages of the Jespersen cycle are represented for French. When a negator is put between brackets it means it is optional at this point.

- (5) French
- a. jeo ne di. (→ 1600)
  - b. je ne dis (pas). (1600 → 1700)
  - 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.’
- (Jespersen 1924: 335-336; Rowlett 1998: 90)

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<sup>2</sup> I discuss the intermediate stages of the Jespersen cycle, during which the presence of the emphatic element *pas* or the preverbal marker *ne* is optional, at the end of section 5.2 below, arguing that they instantiate co-existing grammars in speakers .

Stage II in French involves a period in which the postverbal negative element seems optional. Willis (2011: 94) labels this as Stage IIa, and the period in which the postverbal negator becomes compulsory as Stage IIb. The transition from stage II to stage III also involves periods in which the preverbal element seems optional or the two stages co-exist. In modern spoken French for instance, the marker *ne* has not yet fully disappeared, even though it is not obligatory anymore.<sup>3</sup>

In spite of the huge amount of literature on French negation, the analysis of the respective role of the two negative components in Stage II of the Jespersen cycle is not easily captured within a formal system. There is discussion as to whether stage II should be seen as symmetric or asymmetric (Breitbarth and Haegeman 2010: 68). Under the symmetric approach, both elements are considered to have the same weight in the expression of sentential negation, i.e. both are negative markers. However, it seems hard to capture this in a formal system without ending up with a double negation at the semantic level. Under an asymmetric approach to stage II, ‘the two elements present are not both at the same time related to the expression of negation’ (Breitbarth and Haegeman 2010:68): one element is conceived of as a semantic negator and the other is seen as, for instance, a negative polarity element (Zeijlstra 2009); alternatively, *pas* is inherently negative and makes *ne* negative via Dynamic Agreement (Rowlett 1998:28, Rizzi 1996:76); another possibility is that *pas* has interpretable features and checks the uninterpretable features of *ne* (Roberts and Rousou 2003: 154-155). An asymmetric approach seems to be more easily rendered within a formal system.

Nevertheless, it is a fact that there is a moment in the development of negative markers where both elements are equally necessary to render sentential negation (cf. Willis’s (2011: 94) stage IIb). In present day formal written French, i.e. *le bon usage French*, both *ne* and *pas* are equally necessary ingredients for the expression of sentential negation. Whereas nothing in the current asymmetric approaches forces *ne* to be present for the expression of sentential negation, i.e. its presence is stipulated, I will show that the present account manages to capture the asymmetry between the negative markers in Stage IIb, whilst still accounting for the necessary presence of *ne* to express sentential negation.

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<sup>3</sup> Similarly, the transition from stage III back to stage I can also involve an intermediate stage in which the postverbal negator co-occurs with its weakened form. This stage cannot be described for French, but has been described for English. The clitic *n’t* which attaches to the finite verb co-occurs with the full negator *not* in some varieties of English, such as African American English (Zeijlstra 2004: 55).

Even though the trigger for change from one stage to another will not be the central topic of this paper, I want to consider for a moment how the evolution from stage I to stage II and from stage II to stage III might have been triggered. For French this means that the original preverbal negator *ne* was at some point considered too weak to express negation on its own. This “weakness” is sometimes considered a consequence of the phonological weakening of the preverbal negative marker, the so-called pull-chain approach (Breitbarth 2009: 85), as suggested by Jespersen (1917), or as a consequence of the use of a new emphatic negator, the so called push-chain approach (Breitbarth 2009: 86), as already suggested by Meillet (1921) (cf. Hansen 2013:51-53).

Under the pull-chain approach the preverbal marker remains negative until it disappears. Arguments against this approach have come from Posner (1985:177), who argues that phonological weakening does not necessarily lead to the development of a new negator, as is the case with the negator in South Central Italian dialects. Under a push-chain approach the preverbal negator is pushed away due to a newly emerged emphatic element. This emphatic element is first optionally used with the preverbal negator, until it becomes a compulsory element to express sentential negation in Stage II. When the newly emerged emphatic negator loses its emphatic function and starts functioning as a regular negator, it pushes away the preverbal negator and the language enters stage III (Willis et al 2013: 1-50). It is due to the fact that the emphatic construction is overused that the negative construction gets neutralised over time and ultimately replaces the original preverbal negation (Detges and Waltireit 2002, Kiparsky and Condoravdi 2006).

With respect to French this means that the strengthening of the preverbal *ne* is optional at first. However, at some point the generic noun *pas* is used as an emphaser for negation (next to other emphasizers). When this noun grammaticalizes as a new category and consistently starts co-occurring as a negative adverb with the preverbal negator, until it behaves like a full negative adverb, it pushes aside the preverbal negator *ne* (Willis et al 2013: 1-50).

The analysis to be proposed below assumes a push-chain approach: it is due to the changing nature of *pas* that *ne* eventually becomes redundant in Stage III. Under the present proposal negation is conceived of as being featurally and structurally complex. In Stage IIb the new emphatic negator *pas* starts spelling out a part of the negative features responsible for the expression of sentential negation. The other part is spelled out by *ne*. As such, *ne* and *pas* complement each other for the expression of sentential negation in Stage IIb. In Stage III,

when *pas* has grown structurally and spells out all negative features, *ne* is no longer necessary and becomes redundant.<sup>4</sup>

In the following sections I first elaborate on my classification of negative markers, then I explain the nanosyntactic framework I use, after which I embark upon my analysis of sentential negation in *le bon usage French* and modern French.

### 3. Classifying negative markers

On the basis of meaning distinctions, functional and morphological distinctions and stacking properties, De Clercq (2013) proposes that there is reason to classify negative markers in four different types. De Clercq's (2013) classification starts from the observation that the abstract proposition in (6) is true for all sentences in (7) and (8).<sup>5</sup> However, English uses several different negative morphemes to express this, as illustrated in (7), whereas other languages, like Czech (8) always use the exact same marker, irrespective of the scope the negative marker has to take.

(6)  $\neg P(x)$

(7) a. Mary isn't happy.

b. Mary is not happy.

c. Mary is unhappy.

d. Mary is disloyal.

e. Mary is non-American.

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<sup>4</sup> For more information with respect to potential triggers which lead from one stage to another I refer the reader to the extensive literature on Jespersen Cycle and the triggers underlying grammaticalisation and change in French and other languages, such as Schwegler (1988: 45-46), Winters (1987:27-52), Horn (1989: 452-462), Zeijlstra (2004: 47 – 57), Van der Auwera (2009), de Swart 2010, Willis et al 2013, Breitbarth et al 2013, Willis et al 2013).

<sup>5</sup> Of course these negative markers take scope in different positions. This will be discussed at length in what follows. The fact that these negative markers have different scopal properties is not only visible in the surface position of these markers, but is also reflected in the scope these markers can or cannot have over adjuncts. The markers in (7a-b) can take scope over a clausal constituent following the adjective (see (1a)), whereas this is not the case for the negative markers in (7c-f).

(i) a. Mary isn't happy because John is here, but because his mother has left.

b. \*Mary is unhappy because John is here, but because his mother left.

Differences in scope can be accounted for under the system proposed in this paper and follow from the different internal make-up of the negative markers. Nevertheless, I will not go into these particular data at this point.

- f. Mary is un-American.
- (8) a. Ja ne- jsem sťastný.  
*I neg- am happy.*  
 ‘I am not happy.’
- b. Ja jsem ne- sťastný.  
*I am neg- happy.*  
 ‘I am unhappy.’
- d. Je ne- loajální.  
*is neg- loyal*  
 ‘He is disloyal.’
- e. Je ne- americký.  
*is neg American*  
 ‘He is un- American.’  
 ‘He is non- American.’

The Czech negative marker is thus syncretic across different scope positions for negators, whereas this is not the case for English. Depending on where the negative marker takes scope in English, the morphological realisation differs. Crucially, the difference in scope position and/or morphological realisation can also coincide with meaning distinctions. More in particular, the negative markers in 6a-b-e tend to give rise to contradictory negation, whereas the negative markers in 7c-d-f often give rise to *contrary negation*. In what follows I explain briefly what the distinction is between contradictory and contrary negation.

Two sentences are each other’s contradictories when the Law of Contradiction (LC) and the Law of the Excluded Middle (LEM) apply. The LC states that a proposition (p) cannot be true and false in the same circumstances. The Law of the Excluded Middle says that any proposition is either true or false.

- (9) Law of Contradiction (LC)  
 $\sim(p \ \& \ \sim p)$  (Russell 1940:259)
- (10) Law of the Excluded Middle (LEM)  
 $p \vee \sim p$  (Russell 1940:259)

When we apply this to a concrete example, then sentence (11a) and its negation (11b) cannot



both be true, nor both be false at the same time. They respect the LEM and the LC and are thus each other's contradictories.

- (11)      a. Leila is married.  
            b. Leila is not married.

In contrast, for a pair like (12a) and its negative (12b) the LC applies, i.e. they cannot both be true at the same time, but the LEM does not hold: (12a) and (12b) can both be false at the same time, as illustrated by (12c). When two propositions can be false together, they are each other's contraries.

- (12)      a. She is happy.  
            b. She is unhappy.  
            c. She is neither happy, nor unhappy.

However, if **p** is a set of possible situations, those in which **p** is true, and **U** is the Universe of possible situations of which **p** is a subset, then whether **q** is a contradiction or contrary of **p** is relative to **U** (Borschev et al. 2006: 6). Consequently, it is hard to pin down when negation gives rise to contradictory or contrary negation, because, as noted by Borschev et al (2006), it is highly influenced by pragmatic factors. For the sake of the present paper I follow Jespersen (1917:144), Zimmer (1964: 21-45) and Horn (1989: 273-86, Horn 2005: 331-337) in assuming that low scope negators like *un-* or *dis-* give rise to contrariety more easily than the other negators. The deeper reason for why this is the case I leave to future research.<sup>6</sup>

The morphological distinctions also coincide with functional differences. Negative markers like English *n't*, which scope over tensed predicates, predominantly have the function of denying a previous utterance. Horn (1989: 203) states that "the prototypic use ... of negation is indeed as a denial of a proposition previously asserted, or subscribed to, or held as plausible by, or at least mentioned by, someone relevant in the discourse context." Other markers have a modifying function, as in (13a) or a contrastive function, as in (13b).

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<sup>6</sup> I do not want to claim here that contrariety negation is inherent to the semantics of affixal *un-*, nor is contradictory negation inherent to the semantics of *not*. Both contrariety and contradiction are possible with all possible negative markers, depending on the context. Nevertheless, it seems that affixal negation combines more easily with gradable predicates and therefore gives rise more easily to contrary negation. For discussion of this issue, I refer the reader to Horn (1989, chapter 5).

- (13) a. a not very happy man, not long ago  
b. John was not happy, but sad.

Still other markers like *non-* in English have a classifying function (Warren 1984: 101, Kjellmer 2005), illustrated in (14), whereas the function of markers like English *un-*, *iN*, *dis-* is characterizing (Funk 1971, Kjellmer 2005), as shown in (15).

- (14) Use non-fat milk instead of whole milk. (Corpus npr/07.) (Kjellmer 2005:162)  
(15) Some parents say children in Sarajevo have become increasingly disobedient and difficult to control during this wartime. (Corpus: npr/07.) (Kjellmer 2005:162-163)

A negative marker is classifying when it creates a binary opposition. This is exactly the kind of opposition that sets introduce between members and non-members of the set. The negative marker in (14) for instance partitions the universe into things that are fat and things that are nonfat. Negative markers like *un-*, *dis*, *iN-* on the other hand are characterizing, i.e. they denote some point on the scale. Semantically, they attach to adjectives that denote degree functions: functions from individuals to degrees (Kennedy 1999; Kennedy and McNally 2005). With respect to the example in 0, the negative marker *dis-* in *disobedient* does not trigger a classification of *disobedient children* in opposition to *obedient children*. It only wants to situate children with regard to their position on a scale of obedience.

Furthermore, within one clause some negative markers can be stacked, as shown in (16a), whereas others cannot, as (16b-c) show. When one combines several negative markers in one clause, it is possible to combine them in a certain order, as in (16a), but not as in (16b-c). This may seem an arbitrary fact, but it is not, because these data support the different scope positions for negative markers and the importance of the associated morphological distinctions.

- (16) a. She isn't NOT unhappy.  
b. \*She not isn't unhappy.  
c. \*She un is not n't happy.

By looking at data from nine different languages (Greek, English, French, Chinese, MS Arabic, Persian, Moroccan Arabic, Hungarian and Czech) in terms of the properties

distinguished above, De Clercq (2013: 28-38) distinguishes four different types of negative markers, which she labels as Negative Polarity ( $\text{Pol}^{\text{Neg}}$ ), Focus ( $\text{Foc}^{\text{Neg}}$ ), Degree ( $\text{Deg}^{\text{Neg}}$ ) and Quantity ( $\text{Q}^{\text{Neg}}$ ) markers. The labels correspond to syntactic positions in the clausal spine where these negative markers take scope. Table 1 gives an overview of the different types of negative markers, their properties and the traditional labels that correspond to them.<sup>7</sup>

**Table 1: Classification**

	$\text{Pol}^{\text{Neg}}$	$\text{Foc}^{\text{Neg}}$	$\text{Deg}^{\text{Neg}}$	$\text{Q}^{\text{Neg}}$
	<i>Predicate denial</i>	<i>Predicate negation</i>	<i>Term negation</i>	
<b>Scope</b>	Tensed predicate	Predicate	Predicate term	
<b>Stacking</b>	Foc, Deg, Q	Deg, Q	Q	-
<b>Semantics</b>	Contradiction	Contradiction	Contradiction	Contrariety
<b>Function</b>	Denial	Contrast/modifying	Classifying	Characterizing

This classification deviates slightly from the more traditional three-way classification of negative markers into sentential negation (predicate denial), constituent negation (predicate negation) and lexical negation (Penka, to appear: 2) (predicate term negation), because it splits up lexical or predicate term negation in two different groups.

Since four different types of negative markers can be distinguished on functional, semantic and morphological grounds in some languages like English, the Czech negative marker *ne* can be looked upon as a marker that is syncretic for these four different types. From a cross-linguistic perspective one can thus say that the morphology of negation in some languages (like English) supports the scopal, functional and semantic differences between negative markers on the one hand, whereas other languages (like Czech for instance<sup>8</sup>) underscore the underlying similarity between these negative markers on the other hand, i.e. the fact that all negative markers render the abstract proposition in (6) above, repeated here:

$$(6) \quad \neg P(x)$$

<sup>7</sup> See Horn (1989) for a discussion of the terms predicate denial, predicate negation and predicate term negation in the logic, philosophical and linguistic history of negation.

<sup>8</sup> The presence of syncretic negative markers does not prevent stacking of these markers though. Czech for instance can also stack its negative markers with the expected different interpretations for the negative markers.

A cross-linguistic look at negative markers in nine languages reveals the pattern in table 2 (De Clercq 2013: 67). Even though the sample of languages is not big, it is relatively varied and languages from four different language families are represented. Moreover, the relatively modest scope of the typological sample still allows ample room for generalisations and theoretical work (Baker and McCloskey 2007). Crucially, the negative markers in the languages under investigation can be ordered in such a way that syncretisms across the four different types of markers always target contiguous regions (or cells in the table). More concretely, a systematic pattern arises in which there are no ABA-patterns, i.e. syncretisms never skip a cell, or all syncretisms are contiguous. The sequence that arises when we order the negative markers in such a way is either  $\text{Pol}^{\text{Neg}}$ ,  $\text{Foc}^{\text{Neg}}$ ,  $\text{Deg}^{\text{Neg}}$  and  $\text{Q}^{\text{Neg}}$  or its mirror image. Importantly, not only can the syncretisms be ordered in such a way that no ABA-patterns arise across these nine languages, but the negative sequence which is based on the syncretisms also parallels the natural semantic scope order of negative markers, i.e. from wide to narrow scope or from narrow to wide scope.

Table 2: Syncretism patterns

	$\text{Pol}^{\text{Neg}}$ -marker	$\text{Foc}^{\text{Neg}}$ -marker	$\text{Deg}^{\text{Neg}}$ -marker	$\text{Q}^{\text{Neg}}$ -marker
<b>Greek</b>	dhen	oxi	mi	a-
<b>English</b>	not	not	non	un-
<b>French</b>	pas	pas	non	iN-
<b>Chinese</b>	bù	bù	fēi	fēi
<b>MS Arabic</b>	laa	laa	ghayr-	ghayr-
<b>Persian</b>	na	na	qheyr-	qheyr-
<b>Moroccan Arabic</b>	ma (ši)	muši	muši	muši
<b>Hungarian</b>	nem	nem	nem	-tEIE
<b>Czech</b>	ne-	ne	ne-	ne-

Therefore, it seems that morphology follows or parallels semantic scope. Put differently, the relationship between these morphological exponents of negation is not arbitrary, but governed by syntactic principles. Since the syncretisms show a contiguity relationship between negative markers, there is reason to assume that these negative markers are structurally related and together constitute what can be thought of as negation.

In the next section I explore how this pattern can be captured in nanosyntax and I exemplify the theory by sketching how the framework can account for negation in English. In section 4 I then proceed to an analysis of French.

#### 4. The Nanosyntax of negation

Nanosyntax (Starke 2009, 2011a,b, Caha 2009, Pantcheva 2009, 2011, Fábregas 2009, Taraldsen 2012) is a Late Insertion theory<sup>9</sup> that finds its origins in the cartographic framework (Cinque 1999, Rizzi 1997, Kayne and Pollock 2001, Cinque 2010, Cinque and Rizzi 2010, Shlonsky 2010). The cartographic research programme is to provide a detailed structural map of natural language syntax (Cinque and Rizzi 2008:42). Within nanosyntax syncretisms are considered surface indications of hidden layers of syntactic structure within what is usually considered as one unit, the morpheme (Jakobson 1962, Caha 2009), in this case a negative morpheme.

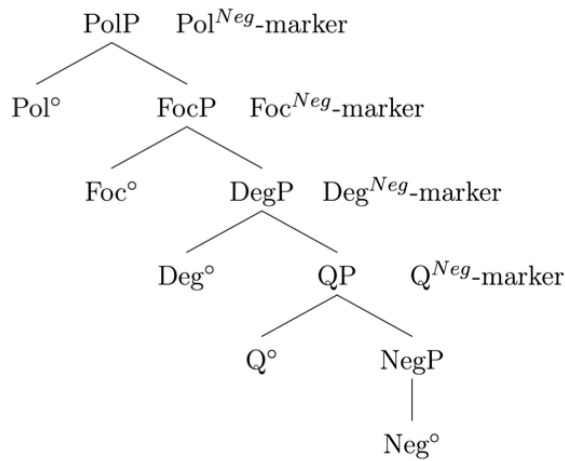
From a nanosyntactic point of view the pattern detected within the domain of negative markers leads to splitting up negation into five different syntactic features and hence to the underlying idea that negation is featurally complex, an idea also present in Poletto (2008) and Haegeman and Lohndal (2010: 199), though applied there to negative indefinites.<sup>10</sup> These four features can be represented by means of a hierarchical structure, consisting of four different heads which I label  $Q^\circ$ ,  $Deg^\circ$ ,  $Foc^\circ$  and  $Pol^\circ$ , and which come on top of a phonologically empty negative  $Neg^\circ$  head. The nanospine that corresponds to the spell-out of the negative morpheme *not* is illustrated by the tree structure in (17).

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<sup>9</sup> In this respect Nanosyntax is like Distributed Morphology (Halle and Marantz 1993, Harley and Noyer 1999). I refer the reader to the aforementioned references for an introduction to DM. I will only focus on Nanosyntax.

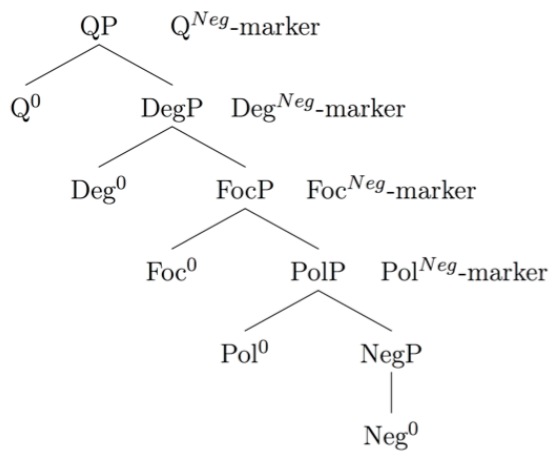
<sup>10</sup> The fact of splitting up negation in different features or different projections is not new as such and is also present in Poletto (2008, this volume). She also splits up  $NegP$  in several projections and base-generates it low on the predicate. However, there are crucial differences between her work and mine, which I elaborate on in footnote 16 of the present paper. Zanuttini (1997) and Cormack and Smith (2002) also postulate different projections for negation in the clausal spine. However, under their approach these projections are structurally unrelated and it remains unexplained why negation surfaces in different positions. Moreover, their approaches focus on sentential negation (Zanuttini 1997) or on sentential negation and what I label as  $Foc$ -negation (Cormack and Smith 2002). Nevertheless, similar subdivisions as distinguished in my classification are present in their work.

(17)



However, based purely on the syncretisms it is impossible to say whether  $\text{Pol}^\circ$  or  $\text{Q}^\circ$  are structurally highest. Theoretically the structure in (18) is also a possible representation of the inner complexity of the negative morpheme. However, I argue this is not the case and the structure in (17) is the correct representation.

(18)



Supporting evidence for this claim can be given on the basis of synchronic and diachronic arguments and arguments of morphological containment. A synchronic piece of support comes from scope and stacking itself. The fact that negative markers like *n't* or *not* can scope over structurally complex constituents, potentially containing negative markers like *non-* or *un-* reflects the fact that the former must be structurally higher, as illustrated in (19).

(19) He isn't happy with her unconventional lifestyle.

A diachronic argument for the containment relationship in 0 is that *un-*, *a-* and *-iN* are derived from Proto-Indo-European (PIE) *\*n-*, which is a variant of *\*ne-* (Harper 2013). *Non-* on the other hand is a univerbation of PIE *\*ne* and the Latin word *oinum*, meaning 'one' (Horn 1989:453). *Not* (Harper 2013) is also morphologically bigger than *un-*, *iN-* and *a-*. It is the unstressed variant of *naught*, which consists of PIE *\*ne* and Old English (OE) *wiht*, which means 'person, creature, thing' (Horn 1989:455, Harper 2013). Based on etymological data *non-* and *not* are clearly morphologically bigger than *un-*, *iN-*, *a-*. Assuming morphological complexity to reflect greater featural complexity, I conclude that the highest feature in the spine yields  $\text{Pol}^{\text{Neg}}$ -markers like *not*, and that the lower features are contained within  $\text{PolP}$ .

With the order of the spine in place, it is still unclear where this nanospine should be generated. I propose it is generated in the specifier of a  $\text{NegP}$  in the clausal spine, whose  $\text{Neg}^\circ$  head carries an uninterpretable negative feature [ $\text{uNeg}$ ]. This uninterpretable feature gets checked off when the spine given in 0 above, with at the bottom a phonologically empty head, carrying [ $\text{iNeg}$ ], is inserted.<sup>11</sup>

However, at this point it is not yet clear how this nanospine can actually lead to the spellout of these negative markers, and how these syncretisms are derived in syntax. In what follows I explain which nanosyntactic tools help to derive the syncretisms in syntax. I explain the nanosyntactic system by applying it to English before I apply the system to the case under discussion, i.e. French *ne...pas* in le bon usage French and *pas* in colloquial French.

As mentioned before, nanosyntax is a Late Insertion theory, which means that lexical items are only inserted after Merge creates syntactic structure with morphosyntactic features. In nanosyntax the building blocks that Merge operates on are very small, even submorphemic. It is precisely due to these submorphemic building blocks that spell out is phrasal.<sup>12</sup> It is "only after some steps of derivation that a constituent large enough to correspond to a morpheme is created" (Starke 2011a: 4). That morpheme is then a phrasal constituent. After

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<sup>11</sup> For other approaches making use of phonologically empty but semantically interpretable operators, see amongst others Zeijlstra (2004), Zeijlstra (2009), Penka (2007), Penka (2011).

<sup>12</sup> For non-nanosyntactic implementations of phrasal spell out, see McCawley (1968), Weerman and Evers-Vermeul (2002) and Neeleman and Szendroi (2007).

each Merge step, spell-out is mandatory, i.e. there is Cyclic Full Interpretation.<sup>13</sup> In order to spell out these phrasal constituents nanosyntax makes use of a post-syntactic lexicon: each lexical item (LI) consists of information related to the item's phonology, a lexical tree, and conceptual information, as illustrated in (20).

(20) [phonology, lexical tree, conceptual information]

When the lexical tree matches the tree in syntax, spell-out is possible. However, when there is no lexical tree that corresponds to the structure in syntax, movement is allowed as a Last Resort. At each node, there is Cyclic Override, which means that the new spell-out overrides the previous spell-out. Two other principles that manage the insertion of lexical items are the Superset Principle, in (21), and the Elsewhere condition, in (22):

(21) *Superset Principle*

A lexically stored tree matches a syntactic node iff the lexically stored tree contains the syntactic node. (Starke 2009:3)

(22) *Elsewhere Condition*

In case two rules, R1 and R2, can apply in an environment E, R1 takes precedence over R2 if it applies in a proper subset of environments compared to R2. (Caha 2009:18, based on Kiparsky 1973)

For more theoretical discussion and background with respect to nanosyntax I refer to Starke (2009, 2011a, 2011b), Caha (2009), Pantcheva (2009, 2011), Fábregas (2009), Taraldsen (2012), De Clercq (2013), and Rocquet (2013). In what follows I will illustrate how this works for English cases of negation.

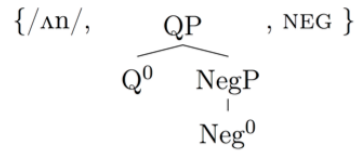
The lexicon of English contains the following lexical items for negation:

(23) LI 1

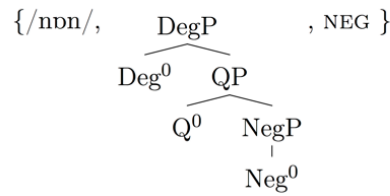
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<sup>13</sup> The spell-out domain in nanosyntax is thus very small, even smaller than in approaches which are considered to take a rigidly cyclic approach to spell out, like Epstein and Seely (2002), Boskovic (2002, 2005) and Mueller (2004), who argue that spell-out domains or phases are not bigger than a phrase, and unlike Chomsky (1995, 2001) who considers vP and CP spell-out domains or phases.

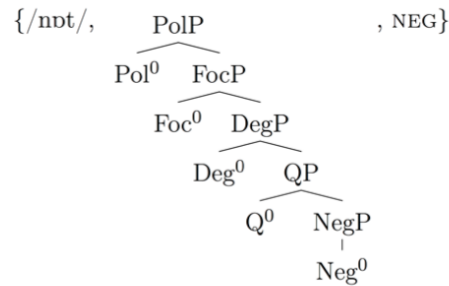




(24) LI 2



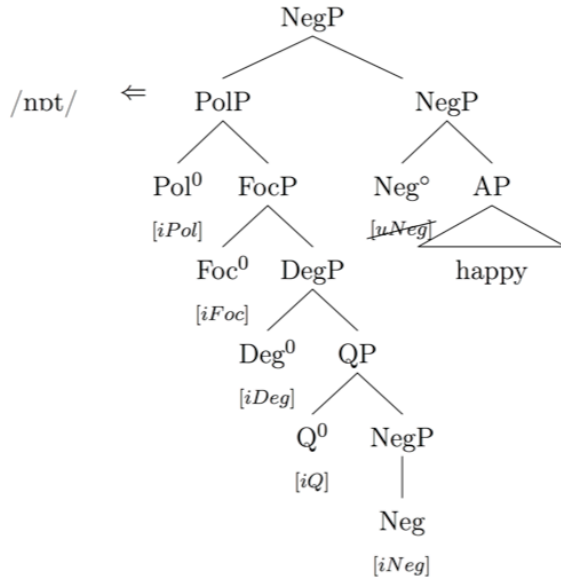
(25) LI 3



In order to derive the English  $\text{Pol}^{\text{Neg}}$  –marker *not*, first  $\text{Neg}^0$  is merged. The lexicon is checked at  $\text{NegP}$ . The LI in (23) matches the structure in syntax by the Superset principle. There are many more items containing  $\text{NegP}$ , but due to the Elsewhere Principle LI 1 is inserted and spelled out as *un-*.  $\text{Q}^0$  is merged and the lexicon is checked at  $\text{QP}$ . (23) matches the structure in syntax.  $\text{QP}$  can be spelled out as *–un* and overrides the previous spellout, which happens to be the same.  $\text{Deg}^0$  is merged, the lexicon is checked again at  $\text{DegP}$ . (24) is a matching item:  $\text{DegP}$  can be spelled out as *non*, overriding *un-*.  $\text{Foc}^0$  is merged and the lexicon is checked at  $\text{FocP}$ . Due to the Superset Principle (25) is a candidate. *Not* spells out  $\text{FocP}$  and overrides *non*. Finally,  $\text{Pol}^0$  is merged. (25) can be inserted and  $\text{PolP}$  is spelled out as *not*. This negative nanospine is generated in the specifier of a  $\text{NegP}$  in the clausal spine (Pollock 1989, Haegeman 1995). However, unlike most  $\text{NegPs}$  in the literature, this  $\text{NegP}$  is merged low on the predicate. The head of this clausal  $\text{NegP}$  functions as a probe. I assume

that it carries an uninterpretable [uNeg] that gets checked off when the negative spine is generated in its specifier.<sup>14</sup> I assume that the features in the nanospine all carry interpretable features that correspond to the heads of the nanospine. The structure as derived up until now is represented in (26).

(26)



The underlying assumption here is that all negation starts out as a predicate negator (see also Horn 1989: ch7, Collins and Postal 2014: 23-27, Poletto 2008). The main argument for this claim comes from the syncretisms. If the syncretisms point to the fact that these negative features are structurally connected, then the features that give rise to  $Q^{\text{Neg}}$ -markers and the features that give rise to  $\text{Pol}^{\text{Neg}}$ -markers should be merged together in one position in order to capture this relation. Given that  $Q^{\text{Neg}}$ -markers, the markers which take lowest scope in all languages under scrutiny, tend to appear in a position very close to the predicate, often even

<sup>14</sup> An issue which I leave unresolved for now is how [uNeg] on  $\text{Neg}^0$  in the clausal spine Agrees with [iNeg] in the nanospine. There are two options to resolve this. One possibility is that the negative spine is first merged lower in the structure and is attracted to  $\text{SpecNegP}$ . This would be a standard case of Agree. The derivation obtained in this way would however involve many more movements. In order to be able to spell out, AP would always have to move to the specifier of the newly merged negative layer. Since movement is less economic than Stay, it doesn't seem the best option. Moreover, negative morphemes crosslinguistically tend to precede the predicate. Consequently, it seems counterintuitive to end up with a structure that has AP at the top and the nanospine below it, even though new movements could be postulated to end up with the right word order. Another option is that the base-generation of the nanospine in  $\text{SpecNegP}$  is comparable to base-generating a subject in  $\text{SpecvP}$ . The Agree mechanism in this case is comparable to what Rizzi (1996:76) calls Dynamic Agreement: the uninterpretable feature on the head can be checked off by an interpretable feature in the specifier.

attached to the predicate, as illustrated by the pair in (27), I argue that all features are merged in a position immediately above the predicate, i.e. as a predicate negators.<sup>15</sup>

- (27) a. She is very unhappy.  
b. \*She is un very happy.

In spite of the fact that the features are merged together in a low position, they take scope in different positions in the clausal spine.<sup>16</sup> The clausal positions have the same labels as the phrases in the nanospine: QuantifierP (Corver 1997), DegreeP (Corver 1997), low FocusP (Belletti 2001, 2004, Jayaseelan 2001, 2008) and PolarityP (Laka 1994, Cormack and Smith 2002, Poletto and Zanuttini 2013). Under the present account this is explained: the markers are syntactically different. The clausal positions function as probes and carry uninterpretable features: [uPol], [uFoc], [uDeg], [uQ]. In order to derive Pol-negation for a sentence as in (28), the nanospine, derived in a way already described above, is inserted into SpecNegP with its five features.

- (28) She is not happy.

Due to the structure of the lexicon, the presence of all features leads to insertion of *not*, as detailed above. Since *happy* is a gradable predicate<sup>17</sup> a QP is projected in the clausal spine. [uQ] on the clausal Q° probes and gets deleted by the interpretable feature [iQ] feature in the nanospine. When Deg° is merged in the main spine, [uDeg] on Deg° probes and Agrees with

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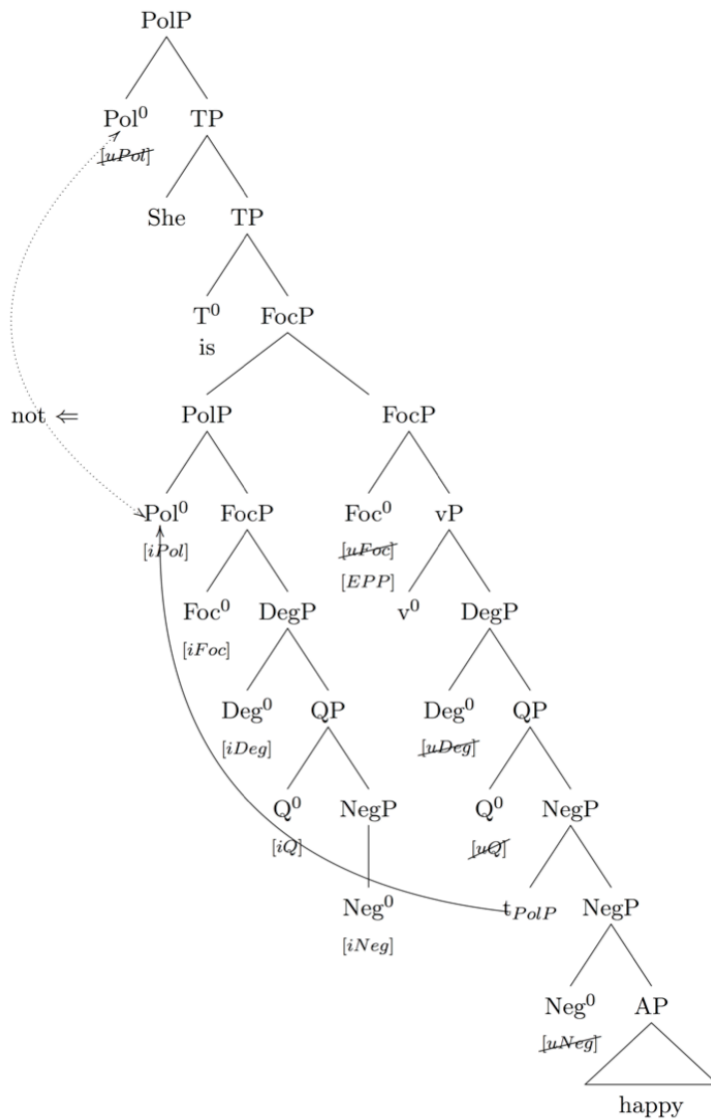
<sup>15</sup> The merge position of these negative features is therefore mostly not the position in which they eventually take scope or where they appear. Movement will ensure that the negative markers end up in their expected surface and/or scope position.

<sup>16</sup> There are parallels between my account and Zanuttini's (1997), who also has four clausal positions for negation; also with Poletto's (2008, this volume), who advocates a low complex NegP which is attracted to Zanuttini's projections in the clausal spine. However, there are also many differences. One crucial distinction is that Poletto's (2008) system does not provide a mechanism to distinguish between for instance French *ne* and Italian *non*, two negative markers which can be considered as Pol<sup>Neg</sup>-markers. Under her account these negative markers would be attracted to the same projection, her ScalarP. Further differences, like the fact that *non* can occur on its own, whereas *ne* needs to co-occur with *pas*, would have to be stipulated. Under the present account the combination of multiple projections and a postsyntactic lexicon enables one to capture these distinctions. The negative nanospine allows negative markers to be classified according to their scope position, whereas the postsyntactic lexicon allows for flexibility with respect to the strength of an individual negative marker. The difference between French *ne* and Italian *non*, both Pol<sup>Neg</sup>-markers and thus high in the nanospine, would be reflected in the size of the lexical trees in the lexicon.

<sup>17</sup> In the absence of a gradable predicate, I assume that QP will not be projected. Given that the features in the nanospine are interpretable this is not a problem.

[iDeg] in the nanospine. Low FocP is projected<sup>18</sup> and [uFoc] probes and Agrees with [iFoc] in the nanospine. There is an EPP on Foc<sup>o</sup> in English, which attracts the entire negative spine to SpecFocP. When Pol<sup>o</sup> is merged, [uPol] probes and finds [iPol] in the nanospine, so its uninterpretable features are checked and the widest scope of negation is established. The structure for this derivation is in (29).

(29)



<sup>18</sup> The use of SpecFocP for negative scope markers makes predictions with respect to the information structural properties of negative clauses and the fact that low FocP has been argued to host postverbal new information subjects in Italian and the subject of certain clefts in French (Belletti 2001, Belletti 2004, Belletti 2008, Belletti 2009: 242-265).

In this way the scope of the semantically interpretable predicate negation in Neg° is extended via the scope markers in its specifier. The internal constellation of the negative features in the specifier correlates with the scope they eventually take. Negation is only interpretable once for the semantics as negation, but is featurally complex. From the present perspective the fact that negation can surface in different positions in the clausal spine, as already described in cartographic proposals by Zanuttini (1997) and Cormack and Smith (2002), gets an explanation: it follows from the fact that these negative markers are syntactically different.

## 5. French

In this section I first provide a nanosyntactic analysis for *le bon usage French* or Stage II of the Jespersen Cycle and thus an answer to the question why in formal written French negation needs two components to express sentential negation. Second I show how the same nanosyntactic system can also account for why in present-day colloquial French, i.e. Stage III of the Jespersen cycle, this *ne* is no longer necessary. Third, I explain how the direction of the change such as it manifests itself the Jespersen cycle can be viewed from the perspective of the present proposal. Finally, I dwell briefly on negative arguments, a topic hitherto untouched.

### 5.1 *Le bon usage French*

I propose that in *le bon usage French* *ne* and *pas* are each responsible for the spell-out of different parts of the negative spine. The lexical tree of *ne* is very small and only spells out the Pol feature. Since *ne* spells out a feature of the nanospine that is not spelled out by any other negative marker, it cannot be made redundant.<sup>19</sup> Put differently, *ne* has become structurally deficient (Cardinaletti and Starke 1999).<sup>20</sup>

The lexicon of *le bon usage French* contains the following lexical items for negative markers.

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<sup>19</sup> I assume that in Old French or Stage I of the Jespersen Cycle *ne* spelled out all layers of the negative spine.

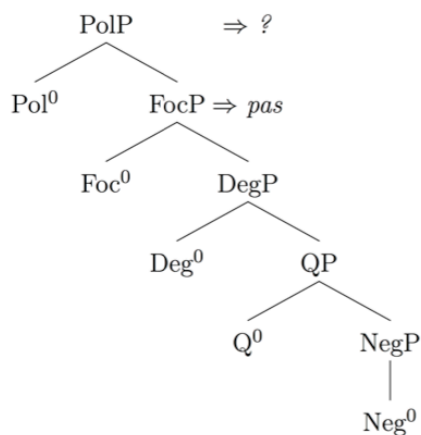
<sup>20</sup> This term can be traced back to Cardinaletti and Starke (1999) and their related concept of Minimize Structure (1999:47). However, under their approach to French pronouns structurally deficient items are preferred until they are independently ruled out. This is not the case in the analysis proposed here.

- (30) a. LI1 </iN-/ [Q [Neg]], NEG>  
 b. LI2 </non/ [Deg [Q [ Neg]]], NEG>  
 c. LI3 </pas/ [Foc [Deg [Q [Neg]]]], NEG>  
 d. LI4 </ne/ [Pol], NEG>

- (31) Il n' est pas heureux.  
 he NEG is neg happy  
 'He is not happy.'

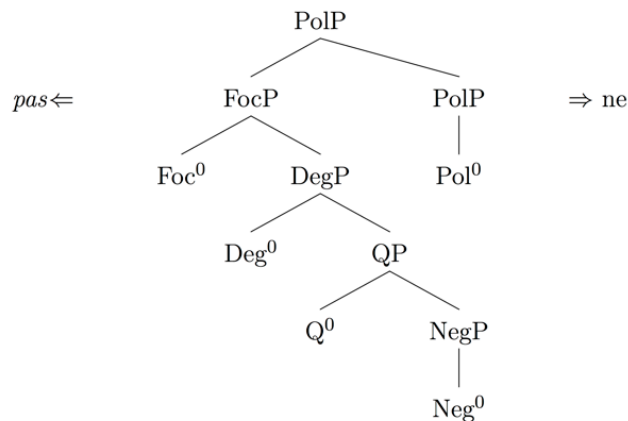
To derive the negation in a sentence like (31), Neg<sup>o</sup> is merged in syntax and the lexicon is checked. There is no LI that matches the syntactic structure. However, by the Superset Principle and the Elsewhere condition, (30a) can spell out Neg<sup>o</sup> as *iN-*. Q<sup>o</sup> is merged and at QP the lexicon is checked again. (30a) corresponds to the structure in syntax and as such the lexical item *iN-* is inserted. Deg<sup>o</sup> is merged in syntax and again the lexicon is checked at DegP. There is an LI, (30b), which matches the structure in syntax. *Non* is inserted in DegP and overrides the spellout of QP. FocP is merged and again the lexicon is checked. (30c) matches the syntactic structure and so it gets spelled out as *pas*. When the final negative layer PolP is merged, the lexicon is checked in the usual way. However, at this point there is no lexical item in the lexicon that corresponds to the structure in syntax, represented by the structure in (32).

(32)



So at this point there is no spellout for the structure in (32). There is a lexical item though that spells out PolP alone, namely (30d).<sup>21</sup> When Merge does not lead to spell out, phrasal movement can be called upon in order for the structure to be spelled out. The complement of Pol° thus moves to SpecPolP, allowing the spell-out of the newly merged feature. Upon consultation of the lexicon, it is clear that there is a LI, 0d, which contains a syntactic tree that can spell out PolP. The feature is spelled out as *ne*. The resulting structure we get then is in (33).

(33)



Finally, the layers QP and DegP of the negative spine check off [uQ] and [uDeg] on the Q- and Deg-probe in the clausal spine, as shown in the structure in 0 below. When FocP is merged in a position dominating vP, [uFoc] on the Foc°-prob gets checked and deleted via

<sup>21</sup> I assume that it is due to the deficiency of *ne* that *ne* can also be used as an expletive negative marker in *le bon usage* French. Rowlett (1998: 28) mentions the following examples of expletive *ne*:

- (i) a. Marie est plus grande que n' est son frère.  
       M. is more tall than ne is her brother  
       'M. is taller than her brother is.'
- b. Elle a peur que tu ne sois là.  
       She has fear that you ne be-SUBJ there  
       'She's worried you might be there.'
- c. Je doute qu'il ne soit là.  
       I doubt that he ne be-SUBJ there  
       'I doubt he's there.'

Since the LI for *ne* only consists of the feature [iPol], I propose it can be immediately merged in its scope position in the clausal spine as well. When it is merged independently from NegP it loses its semantic negativity. Italian *non* can also be used as an expletive negative maker (Belletti 2001), but cannot be said to be deficient in the same way as French *ne*.

Agree with [iFoc] in the nanospine.<sup>22</sup> The subspine containing FocP is extracted from its base-position and moves to SpecFocP (due to the presence of an [EPP] feature on Foc<sup>0</sup>).<sup>23</sup> Pol° is merged and probes down and Agrees with [iPol] on Pol°. Due to an [EPP] feature on Pol° the constituent spelling out *ne* gets attracted and moves to SpecPolP. I assume that the subject moves to SpecFinP (Cardinaletti and Roberts 2002, Haegeman 2012), a position higher than PolP. The structure is illustrated in (34).

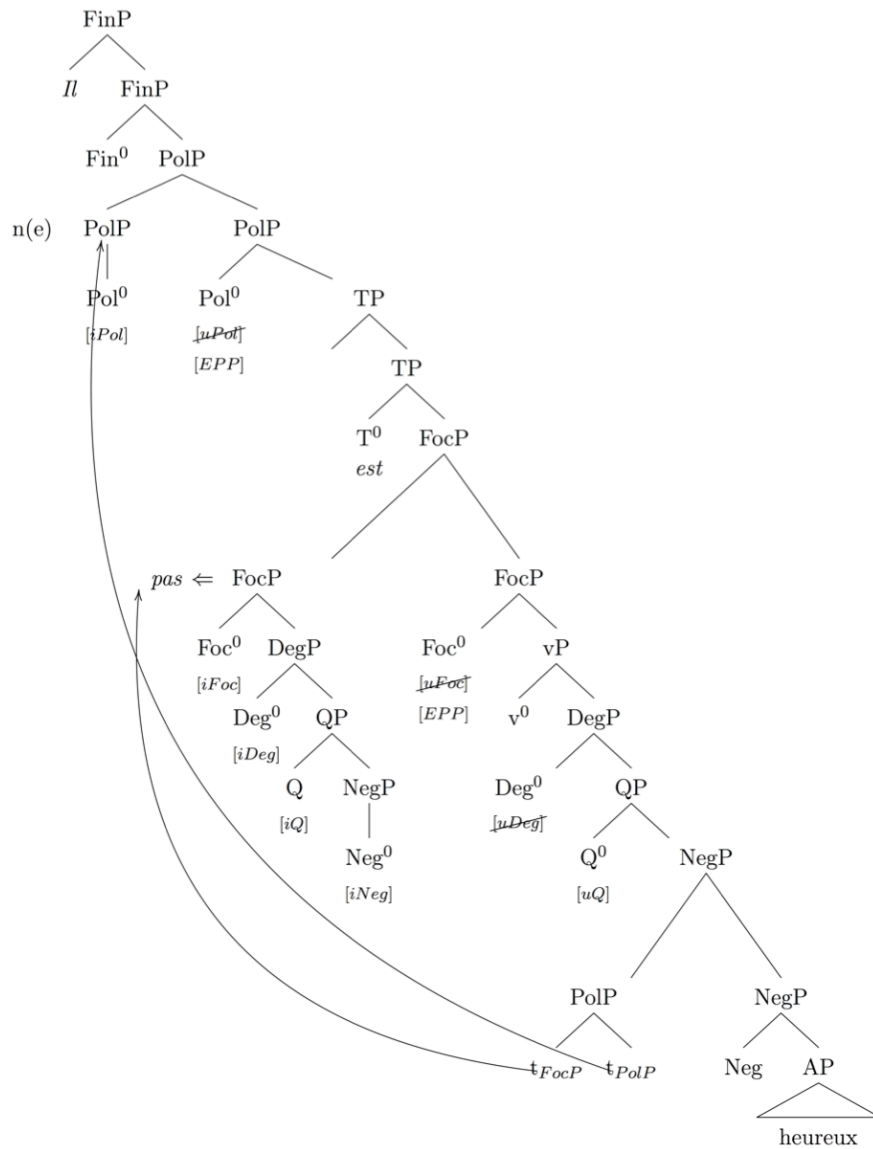
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<sup>22</sup> Rowlett (1998) also proposes that *pas* starts out low. It starts out as an adjunct to VP in modern spoken French. It then needs to move to SpecNegP in order to give rise to sentential negation and to make *ne* negative via Dynamic Agreement. If it doesn't move to SpecNegP it expresses constituent negation.

<sup>23</sup> The use of SpecFocP for negative scope markers makes predictions with respect to the information structural properties of negative clauses: it suggests that in negative clauses low FocP is not available for other constituents. However, Belletti (2008, 2009: 242-265) proposes that the subject of clefts in French moves to SpecFocP, in order to give rise to new information focus. Therefore, I assume that in negative subject clefts the subject of the cleft remains within the embedded CP.



(34)



Summarizing, under the present approach two elements which express sentential negation together can both be considered negative and still need each other to express sentential negation due to the fact that they form two parts of a negative spine, which is in its entirety responsible for the expression of sentential negation. That the  $\text{Pol}^{\text{Neg}}$ -marker *ne* cannot express sentential negation on its own is due to the fact that it has become structurally deficient: it spells out only the top layer of the negative spine, *PolP*. The lower negative features need to be spelled out by another lexical item.

## 5.2 Colloquial French

In present day spoken French *pas* has become the real sentence negator. Within the present system I account for this change by proposing that the lexical tree for *pas* has grown in size and thus becomes a  $\text{Pol}^{\text{Neg}}$ -marker. The evolution of *pas* is visible in the lexical items: *pas* spells out five layers now. As a consequence, *ne*, still part of the lexicon, becomes redundant and leaves the negative spine. The account proposed here is thus exactly compatible with a push-chain approach towards Jespersen's Cycle.

- (35) a. LI1 </iN-/ [ $\text{Q}^\circ$  [ $\text{Neg}^\circ$ ]], NEG>  
b. LI2 </non/ [ $\text{Deg}^\circ$  [ $\text{Q}^\circ$  [ $\text{Neg}^\circ$ ]]], NEG>  
c. LI3 </pas/ [ $\text{Pol}^\circ$  [ $\text{Foc}^\circ$  [ $\text{Deg}^\circ$  [ $\text{Q}^\circ$  [ $\text{Neg}^\circ$ ]]]]], NEG>  
d. LI4 </ne/ [ $\text{Pol}^\circ$ ], [NEG]>

The derivation for the nanospine in a sentence like (36) goes in the same way as described for the structure in (34) until the final layer  $\text{Pol}^\circ$  is merged.

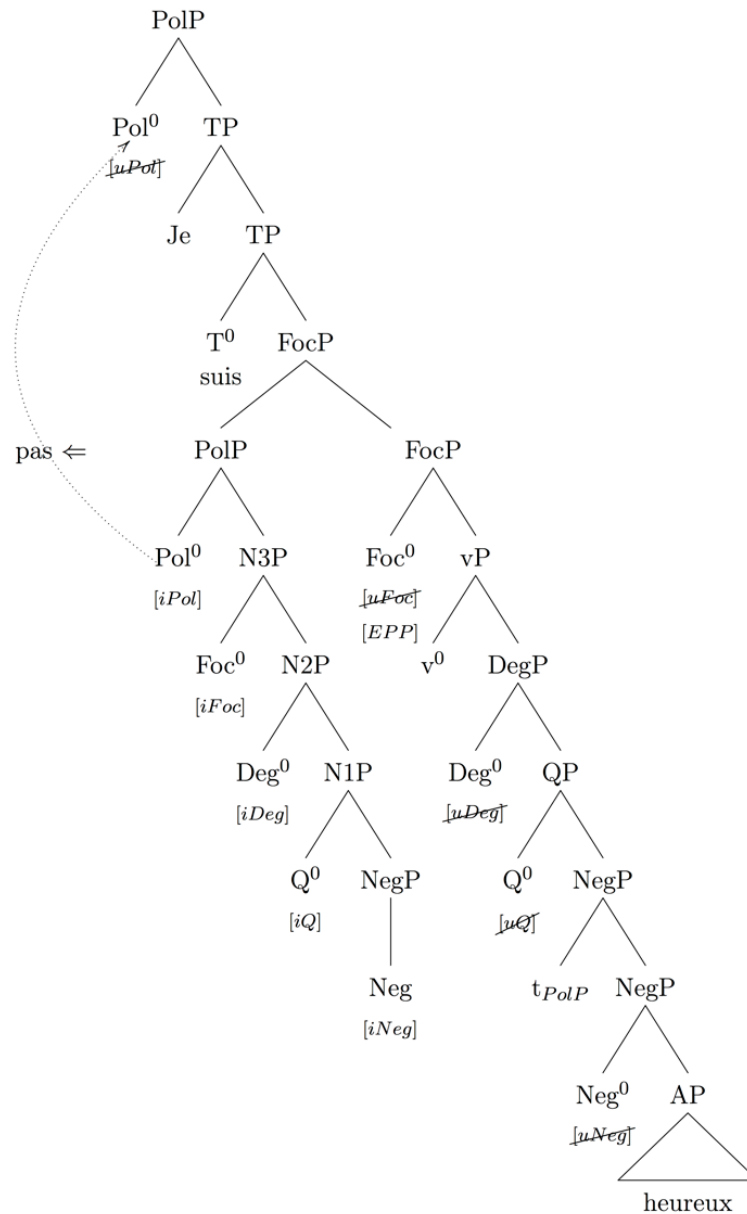
- (36) Je suis pas heureux.

When the final negative layer  $\text{Pol}^\circ$  is merged, the lexicon is checked in the usual way. The LI responsible for spelling out  $\text{Foc}^\circ$ , i.e. 0c, matches with the syntactic structure and leads to spellout. As such, the lexical item for *ne*, 0d, which also consists of  $\text{Pol}^\circ$ , becomes redundant. In order to spell out *ne* the computation would have to take recourse to phrasal movement. Given that a more economic option, namely no movement, is possible, the LI for *ne* is banned from the negative spine.

Once the Split NegP is fully merged and spelled out, the derivation proceeds in the same way as described above. The Q- and Deg-probe in the clausal spine Agree with the corresponding features in the nanospine in the manner described in the previous subsection. When  $\text{FocP}$  is merged in a position dominating  $\text{vP}$ ,  $\text{Foc}^0$  probes and Agrees with [ $\text{iFoc}$ ] in the nanospine to have its uninterpretable features deleted. The entire negative nanospine, corresponding to *pas* moves to  $\text{SpecFocP}$  (due to the presence of an [EPP] feature on  $\text{Foc}^0$ ). Clausal  $\text{Pol}^0$  Agrees with [ $\text{iPol}$ ] and checks off its uninterpretable feature. There is no [EPP]

feature on  $\text{Pol}^0$  and the negative marker stays in SpecFocP. The derivation for sentential negation in colloquial French is in (37).

(37)



Due to the fact that the LI for *pas* has grown in size, presumably triggered by the fact that the emphatic negator becomes a neutral negator due to overuse (Kiparsky and Condoravdi 2006), the LI for *ne* becomes redundant and is no longer used for the spell-out of the negative spine.

As such, it loses its function as a negative marker in colloquial French, and we have arrived in Stage III of Jespersen's Cycle.

As a final note I will say something about the intermediate stages of Jespersen's Cycle, those in which one or the other negative marker is optional. I want to argue that the optionality can be understood as a consequence of co-existing grammars or *diglossia* (Lightfoot 1999: 92). In Stage IIa (Willis 2011: 94), when *pas* is *optionally* present, the grammar of Stage I, in which the LI of *ne* was still able to spell out the entire negative spine, co-exists next to the new grammar of Stage IIb. Similarly, when the language undergoes a change from Stage IIb to Stage III, there is a period in which the grammars as described above co-occur. Both grammars are in this stage accessible to all speakers and mutually intelligible.

### 5.3. A note on diachronic change

Grammatical reanalysis is generally thought of as involving upward change along the functional hierarchy, i.e. from a lexical item to a functional item, and is generally thought of as leading to structural or featural simplification (cf. Roberts and Roussou 2003, van Gelderen 2004). The Jespersen cycle works similarly: new negative elements start out lower in the functional hierarchy, as predicate negators (Chatzopolou 2013), and they slowly climb up along the spine, until they reach the propositional level (Chatzopolou 2013).

However, the present system offers a novel way of looking at diachronic change, and more in particular the Jespersen cycle, in that upward change does not only involve structural simplification (pace Roberts and Roussou 2003). Rather it shows that diachronic change involves both growing complexity and simplification of lexical items at the same time. For example, the introduction of *pas* as a negator in French in stage II of the Jespersen Cycle leads to a competition with *ne*, which in turn leads to a loss of features in the lexical item for *ne*, i.e. the tree it spells out becomes smaller. This goes hand in hand with the tree of *pas* becoming bigger, however. As the tree of *pas* becomes progressively bigger, *ne* may even completely disappear from the system. The process of grammaticalisation in general could be viewed as one involving the loss of grammatical features in certain lexical items, with a concomitant gain of these same features in different lexical items. This is because the features in themselves are not lost, but there is a redistribution in the way they are expressed. One might say that there is a law of the Conservation of Features, which ensures that in the

grammatical system as a whole, features are not lost. While feature loss may occur at the level of individual lexical items, it needs to be compensated for in other lexical items, which will come to express the features lost in the former. Needless to say, this is an issue with ramifications that go well beyond the scope of the present paper. I must therefore leave it as a matter for further research.

#### 5.4. A note on negative arguments

An important issue that was not addressed in this paper, and that I will not elaborate on, is how negative arguments like *rien* ‘nothing’, *personne* ‘no-one’, *aucun* ‘no’, *jamais* ‘never’, etc. are treated within the present account. Essentially, I think a similar approach as taken for regular negative markers is possible, provided it is taken into account that these negative arguments also spell out features like [thing] (*rien*), [person] (*personne*) and [time] (*jamais*). I assume that these negative arguments incorporate in FocP of the negative spine, as new emphatic negators, as soon as they become compulsory elements to express sentential negation. As long as they still need *ne* they consist of only four negative layers, i.e. NegP, QP, DegP, FocP. As soon as they can spell out sentential negation on their own, they consist of all five layers. Evidence for this approach comes from the partial syncretisms between the negative marker *not* and negative indefinites like *no*, *nothing*, *never* and *nobody* in English, and between Czech *ne* and the indefinite *nikdo* ‘no one’. More cross-linguistic comparative research is needed to see whether this approach can indeed be maintained.

#### 5.5. Summary

The analysis showed how the diachronic evolution of negative markers, known as Jespersen’s Cycle, can be captured well by a nanosyntactic system. Whereas other accounts struggle to account for the obligatory presence of *ne* in Stage IIb (Willis 2011), a nanosyntactic approach manages to account for the obligatory nature of the preverbal negator. The fact that two markers together express sentential negation in *le bon usage* French is reflected in the lexical entries of the negators. The LI for the old preverbal negative marker has become ‘structurally deficient’: it only spells out one negative feature anymore, Pol<sup>o</sup>, and cannot spell out the

features below Pol°.<sup>24</sup> However, since it is the only negative marker in the lexicon that can spell out Pol°, it still is inserted when the syntax merges Pol in the nanospine. As a consequence, both the Pol<sup>Neg</sup> - and Foc<sup>Neg</sup> -marker combine to spell out sentential negation together.

Spoken or colloquial French on the other hand has entered stage III of Jespersen's Cycle. The postverbal negative marker has become the new negative marker, because the size of the lexical item *pas* has grown in structure. It now spells out all negative features, including Pol°. As a consequence, when PolP is merged in the nanospine, *pas* is inserted, because inserting *pas* does not require movement and is thus the most economical option. As such, *ne* becomes redundant as a negative scope marker in the spine and leaves the spine. *Ne* remains present in the language as an expletive marker of negation, losing its real negative meaning.

## 6. Conclusion

This case study of French negation showed that the nanosyntactic system is well equipped to account for diachronic change and more in particular for Jespersen's Cycle. The change from bipartite negation in Stage IIb of Jespersen's Cycle to the use of a sole postverbal negative marker in Stage III boils down to a change in the structural size of the lexical items. The account supports a push-chain approach: changes in the emphatic postverbal negator make the old preverbal negator redundant. The preverbal negative marker in Stage IIb is structurally deficient and cannot spell out the lower negative features in the spine anymore due to the emergence of the new emphatic negator *pas* that now spells out these lower features. Consequently, in this stage sentential negation can only be expressed by means of two items, *ne* and *pas*, that complement each other. Stage III is characterized by the fact that the new negator *pas* has grown in size and spells out all negative features, pushing away the preverbal negator.

Finally, the proposal developed here sheds a new light on the relationship between markers for sentential negation and constituent or lexical negation. The pattern of syncretism

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<sup>24</sup> See Breitbarth (2014) for a different proposal.

uncovered within the realm of negative markers shows a structural relationship between negative markers giving rise to sentential negation and those giving rise to constituent and lexical negation.

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