

# Negation in Morphology

## Abstract

Negative markers<sup>1</sup> are not a uniform category. They come in various types and, depending on their type, they take scope over a clause, a phrase or just a word. Low scope negative markers (LSN) like *de-*, *dis-*, *un-*, *iN-*, *non-*, *-less* are bound morphemes and have therefore been mainly studied within morphology, focussing on the semantics of these markers (contradiction vs. contrariety), issues related to their productivity, and their combinability with certain categories. Wide scope negative markers (WSN), like *not* are often free morphemes, and are usually treated within syntax. We could thus say that there is a morphology-syntax divide when it comes to the treatment of negative markers.

However, there are reasons to give up this divide and to uniformly treat negative markers within one module of the grammar. First, from a typological point of view the bound-free divide of negative markers does not correlate with their scope. For instance, agglutinative languages have WSN markers that are bound morphemes attaching to the verbal base. Second, morphological processes, like suppletion or other types of allomorphy, can be observed in markers that show properties of WSN markers. Third, independent negative particles, like for instance the Dutch free morpheme *weinig* ‘little, few’, shares stacking properties with other LSN markers like *un-* and *iN-*. Fourth, both LSN and WSN markers are subject to the same constraint concerning stacking scopally identical negative markers. Fifth, syncretisms have been found across languages between WSN and LSN, allowing negative markers to be ordered in such a way that no \*ABA patterns arise, suggesting that the morphology of negative markers reflects the natural scope of negation and that there is a continuum between LSN and WSN markers.

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<sup>1</sup>This paper will appear as an entry in the Oxford Research Encyclopaedia of Linguistics. I welcome all comments that can further the quality of this paper: karen.declercq@ugent.be

# 1 Introduction

The present article provides an introduction to some important lines of thinking about negation from the perspective of both lexical and syntactic approaches to morphology. The focus will be on an array of purely negative markers or modifiers like those in (1) and their crosslinguistic counterparts.<sup>2</sup>

- (1) *not, n't, de-, dis-, un-, iN-, non-, -less*

One of the main ideas crosscutting this entry is that the traditional treatment of bound negative morphemes in morphology and free negative morphemes in syntax is misguided. The relevant distinction for negative markers is whether they have low scope (Low Scope Negative markers) or wide scope (Wide Scope Negative markers). The scopal properties of a negative marker determines its distribution, regardless of its nature as a bound or free morpheme. In addition to discussing some of the main approaches to negation in morphology, this entry also provides some arguments to give up the traditional syntax-morphology divide when it comes to the domain of the negation.

Lexicalist morphologists working on English or other Germanic languages (Marchand 1969, Siegel 1974, 1978, Bauer 1983, Di Sciullo & Williams 1987, Lieber 1981, Horn 1989, Booij 2002, Plag 2003, Hamawand 2009) typically discuss negative markers that play a role in word formation processes, like the negative bound morphemes *de-*, *dis-*, *un-*, *iN-*, *non-*, *-less* whose scope turns out to be limited to the level of the word to which they attach. These negative markers are considered ‘derivational morphemes’, because either they change the category of the base (as is the case for *-less*), and/or they add meaning to the word to which they attach (see Lieber &

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<sup>2</sup>This article will not dwell on the morphological make-up of negative determiners like *no* or nouns like *nobody/nothing*, nor on negative adverbs like *never* or NPIs like *any*, which clearly can and have sporadically been analysed from the morphologist’s point of view (see for instance Haspelmath 1997, Hoeksema 1999). It should be noted that scope differences, as discussed in this paper, can also be observed for negative determiners like *no*:

- (i) a. With no job would Mary (ever) be happy.  
b. With no job Mary would (\*ever) be happy.

Wide scope negative indefinites trigger inversion and license Negative Polarity Items like *ever*, (ia), whilst narrow scope negative indefinites do not give rise to inversion nor to the licensing of NPIs, (ib). I will not further discuss scopal differences triggered by negative indefinites.

Štekauer 2014, Lieber 2017 for a discussion of the distinction between derivational and inflectional morphology). Derivational negative markers are usually referred to as instances of ‘morphological negation’ (Horn 1989:187, Hamawand 2009), ‘affixal negation’ (Horn 1989:273-308) or ‘lexical negation’ (Dahl 2010). Crucially, their scope seems restricted to the level of the word to which they attach. If we apply the tests designed by Klima (1964) to check whether the negation in a sentence gives rise to sentence negation or not, the sentences containing this type of negative marker pattern with the affirmative sentence, unlike the sentence containing the sentential negative marker, (2b). This is illustrated for the question tag-test in (2), the *either/too*-test in (3) and the *neither/so*-test in (4).<sup>3</sup>

- (2) a. Hoboken is in New Jersey, \*is it/isn’t it?  
b. Hoboken isn’t in Pennsylvania, is it/\*isn’t it? (McCawley 1998:611)  
c. John is unhappy, \*is he/ isn’t he?
- (3) a. John voted for Bergland, and Mary voted for him too/\*either.  
b. John didn’t vote for Reagan, and Mary didn’t vote for him \*too/either.  
(McCawley 1998:604)  
c. John’s spouse is non-Christian, and Jim’s spouse is non-Christian too/\*either.
- (4) a. John voted for Stassen, and so/\*neither did Mary.  
b. John didn’t vote for Stassen, and \*so/neither did Mary.  
(McCawley 1998:609)  
c. John is dishonest, and so/\*neither is Mary.

I will refer to these word-level negators as Low Scope Negative markers (henceforth LSN). However, there is another type of negative markers, which also yields affirmative sentences according to the Klima-tests, and hence can be considered to have low scope, but which is usually not discussed in morphological accounts and only rarely in syntactic accounts.

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<sup>3</sup>With respect to tags it is important to note that there are two types of tags: question tags, also called reversal tags, and reduplicative tags (McCawley 1998), which signal the speaker’s conclusion or sarcastic suspicion (Quirk et al. 1985). If we were to take reduplicative tags into account as well, then (2a) and (2c) were also to be considered compatible with the positive tag, though with a different reading for the tag. Since negative reduplicative tags are generally considered to be unavailable (Quirk et al. 1985) it can be argued that negative sentences can only be combined with positive question tags. For more discussion, see also Quirk et al. (1985), De Clercq (2011), Brasoveanu et al. (2014).

This type of negator, the so called ‘constituent negator’, like English *not*, appears in phrases or sentences like (5), where it gives rise to contrastive negation and in sentences like (6) where it fulfills the role of a modifier.

- (5) a. John drank not coffee, but tea.  
      b. John drank tea, not coffee. (McCawley 1998:613)
- (6) a. He found something interesting there *not long ago*, and \*neither did she/ so did she.  
      b. He had spoken with someone else *not many hours earlier*, \*had he/ hadn’t he? (Klima 1964:305)

As the question tags in (6) indicate, this type of negation also patterns with affirmative sentences, at least when it comes to question tags. Moreover, neither the bound LSN markers and constituent ‘not’ give rise to negative inversion, (7) - (8), again showing that they pattern with affirmative sentences.

- (7) \**Unusually* among British prime ministers was he not a man of natural authority.
- (8) a. \**Not long ago* was there rain falling.  
      b. \**Not many hours earlier* had he spoken with someone else. (based on Klima 1964:306)

The situation with respect to the data with contrastive negation in (5) is a bit different. Sentences like these can but need not take inversion when the negated constituent is preposed, as in (9). I assume that this ambiguity is a consequence of the fact that *not* is syncretic between being a constituent negator and a sentential negator in English (cf. section 4) and the inverted sentence has a sentential negator underlyingly, i.e. as in (10), whilst the non-inverted one has a constituent contrastive negation as its base and is thus the actual counterpart of the set in (5).

- (9) a. Not tea, but coffee John drank.  
      b. Not tea but coffee did Johan drink.
- (10) John did not drink tea, but coffee.

Negative Polarity Item (henceforth NPI)-licensing on the other hand is possible with LSN markers. However, due to the low scope of the negator, there are less situations with LSN where the negator has scope over an NPI, i.e. only when the negated predicate takes a complement phrase, as illustrated in (11).

- (11) a. He **dis**liked doing *any* more than necessary.  
 b. \*He liked doing any more than necessary.  
 c. It is **un**usual for *any* rain to fall in January.  
 d. \*It is usual for any rain to fall in January. (Klima 1964:292)

Unlike LSN markers, the regular constituent negator *not* does not seem to license NPIs easily, (12).<sup>4</sup>

- (12) \*Not long ago there was any rain falling. (Klima 1964:306)

Sentential negative markers, also referred to as ‘standard negation’ (Payne 1985, Miestamo 2005), are usually not or only briefly discussed in morphological accounts, because these markers are usually treated within syntax. These markers have wide scope, give rise to sentential negativity with respect to the Klima-tests, (2b)-(3b)-(4b), trigger inversion and license NPIs, (13). I will refer to them as Wide Scope Negative markers (WSN markers).

- (13) Not even then did the writers of any of the reports think so. (Klima 1964:279)

WSN markers are often independent particles, which makes them literally ‘syntactic markers’. Dryer (2011) reports that out of a sample of 1157 languages, 502 languages make use of an independent particle for the expression of their standard negation. The example in (14) illustrates this for Musgu, an Afro-Asiatic language, but a well-known example is of course English sentential *not*.<sup>5</sup>

- (14) à sədà cécébè pày  
 3SG.M. know jackal NEG  
 ‘He didn’t see the jackal.’ (Meyer-Bahlburg 1972:186 in Dryer 2011)

However, what is often neglected is that there are at least two reasons to treat WSN markers within morphology. The first one has to do with Dryer (2011)’s sample. In a substantial part of the languages in his sample, i.e. 395 languages, the sentential negative markers is expressed by means of

<sup>4</sup>It is worthwhile pointing out that the term ‘constituent negation’ is ill-fitted, because regardless of its scope all negative markers negate a constituent, even clausal or sentential markers do.

<sup>5</sup>Other instances of negative sentential morphemes in Dryer’s sample are languages that make use of negative verbs or of a negative word for which it is hard to tell whether it is a verb or an affix. In addition there are a bunch of languages (119) that make use of ‘double negation’, which is Dryer’s terminology for bipartite negation and for which it is unclear whether they are bound or free.

an affixal negative marker. As such, the WSN marker is attached to the base morpheme that it modifies and could thus—from a non-theoretical point of view—be treated within morphology. An example of an affixal sentential negative marker from Turkish is in (15), illustrating the verb form *anla-m-ıyor*, where the negative marker *-m-* is attached to the verbal stem and even closer to it than the progressive marker.

- (15)    Sen-i      anla-m-ıyor              değil-Ø-im.  
          you-ACC understand-NEG-PROG NEG-COP-1SG  
          ‘It’s not that I don’t understand you.’

Typologists have treated this type of negative marker in morphology, and labelled it accordingly ‘morphological negation’ (Dahl 2010). One of the issues that arises then is whether it should be treated within inflectional or derivational morphology. For inflectional morphology it has been argued that it is relevant to syntax (Anderson 1992). Since we know that sentential negation is undeniably relevant to syntax (Haegeman 1995, Zanuttini 1997, Zeijlstra 2004), it makes sense to argue that bound WSN markers are inflectional affixes, something which has been proposed for English *n’t* by Zwicky & Pullum (1983). However, this does not prevent these morphemes from also being derivational. If one of the properties of a derivational morpheme is (amongst other things) that it brings about change to the meaning of the base, then this is also the case for affixal WSN markers (Lieber 2017). Consequently, one could say that Bybee (1985) and Dahl (1979), who argue that all sentential negative markers that attach to verbs can be treated as inflectional affixes, and Payne (1985), who claims that they belong to the realm of derivational morphology, are both on the right track.

The second reason to not simply assume that WSN markers need to be treated within syntax has to do with that fact that both bound and free WSN markers can display allomorphy conditioned by tense, aspect and mood (henceforth TAM), as for instance in Persian, Greek, Modern Standard Arabic and many other languages. Moreover, the negative marker can also condition allomorphy in inflectional markers, as is the case in Swahili (Stump (2001)) and for instance in Tamil (see Miestamo 2003, 2005, Dahl 2010 for more discussion of allomorphy under the influence of standard negation). These facts would warrant treating these markers as ‘morphological negation’.

However, since Dahl’s term ‘morphological negation’ is also often used to refer to LSN markers (in particular in the grammar of English), we will refer to all sentential markers, whether affixal or independent, as Wide

Scope Negative markers (henceforth WSN).

What is clear from the discussion above is that the status of a morpheme as being bound or free is not the right criterion to classify negative markers as being instances of ‘morphological’ or ‘syntactic’ negation, since this criterion is not insightful with respect to the function and scope of a negative marker. What looks like ‘morphological’ negation can be ‘syntactic’ with respect to its scope, as the data in (15) illustrate. Moreover, what looks like ‘syntactic’ negation can have properties that are typical of so-called ‘morphological’ negators or LSN markers, as we will discuss in section 2 for Dutch *weinig* and French *peu* ‘few’. This idea was already present in Dowty (1979:302), who argued that there are lexical rules and syntactic rules and both can be subjected to syntactic and morphological operations.

It thus seems that a strict syntax-morphology divide cannot be upheld when it comes to negative markers. More concretely, a closer study of negative markers provides arguments against the Lexical (Integrity) Hypothesis (Chomsky 1970, Borer 1998, Williams 2007), also called Word Structure Autonomy Condition (Selkirk 1982) or the Atomicity Thesis (Di Sciullo & Williams 1987). The main idea behind this hypothesis is that the system of words is independent from the system of phrases and that syntactic rules cannot refer to elements of morphological structure (Lapointe 1980:8). Under this type of approach free negative morphemes are usually treated in syntax and bound negative morphemes in morphology. However, if the criterion to decide whether a rule is lexical or syntactic is whether it can feed word formation or not (Dowty 1978:412, Bresnan 1982:21, Müller & Wechsler 2014:32), then the example in (16) shows that phrasal syntax and the WSN marker associated with it can feed word formation and can hence be considered ‘morphological’.

(16) She had that ‘don’t you dare’ look. (Bruening 2018)

Examples like those in (16) can be used as support for the idea that there is interaction between morphology and syntax and that both modules of the grammar can see and manipulate each other (?), an idea that has been around for long. Jespersen (1917:145) already noted cases like *un-in-one-breath-utterable skill* where there is phrasal syntax intervening in between a LSN marker and the predicate to which it attaches, hence also problematizing the morphology-syntax divide.<sup>6</sup> Some models of grammar have

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<sup>6</sup>It must be noted here that in this example and other examples mentioned in the literature, e.g. *unfooled around with*, *not un-up your alley* and *very un-what-I-expected* for instance (Horn 2005:362), the LSN marker has wider scope than typical of a LSN marker.

stretched this idea to the point that they abandon the traditional notion of the lexicon, as is the case in Distributed Morphology (Baker 1985, Sproat 1985, Halle & Marantz 1993, Marantz 1997, Borer 2005), or even abandon the separation of morphology and syntax in two different modules of the grammar, as is the case in Nanosyntax (Starke 2009, Caha 2009, Pantcheva 2011, Baunaz et al. 2018). We will get back to those models in section 3 and 4 respectively.<sup>7</sup>

In section 2 we will first discuss how LSN markers have been treated in the literature, i.e. within morphology, to then move on to problematize this. In section 3 we embark upon a discussion of negative portmanteaus in Korean with wide scope, as such illustrating a case of negative allomorphy in support of the idea that WSN markers do not only belong to syntax. In section 4 we end with the discussion of a cross-linguistic study which shows that there are syncretisms between LSN and WSN markers providing yet another argument for the treatment of all scopal types of negative markers within one component of the grammar, regardless of whether they are bound or free.

## 2 Low scope negative markers

In the first part of this section we will discuss some of the most common topics associated with LSN in English as they have been discussed in lexicalist approaches to morphology. In the second part of this section, we will zoom in on a well-known morphological restriction regarding the combination of negative prefixes with negative adjectival bases and we will point out how this same restriction arises with so-called syntactic negative markers, providing support for the idea that the division between morphology and syntax is blurred when it comes to negation.

LSN markers, like for instance those in (17), are derivational negative affixes or affixes that are scopally confined to the level of the word.<sup>8</sup>

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I assume - in line with De Clercq & Vanden Wyngaerd (2019)- that the LSN marker used in these constructions can be considered a metalinguistic type of negator that negates an associated presupposition that comes with the amalgams under discussion. Some support for this idea comes from the fact that this *un-* takes a different stress pattern. Whilst negative prefixes are usually unstressed with stress being on the second or third syllable, this metalinguistic *un* takes stress.

<sup>7</sup>Syntactic approaches to morphology, like Distributed Morphology and Nanosyntax, can also be called realisational models, but they are morpheme based realizational models as opposed to Paradigm Function Morphology, which is a word-based realisational model (Stump 2001).

<sup>8</sup>But see Horn (2005:362) for examples with *un-* taking wider scope, e.g. *unfooled*



- (17) *dis-, un-, iN-, non-, -less*

They have been discussed extensively in—amongst others—the work of Zimmer (1964), Marchand (1969), Algeo (1971), Funk (1971), Maynor (1979), Andrews (1986), Horn (1989), Lieber (2004), Lieber & Scalise (2006) and Hamawand (2009). The discussions mostly focus on the productivity of these markers, their semantics, and the bases they combine with. The focus of our discussion will be on the semantics of these affixes: typical meanings that are associated with some or all of these prefixes are privation (i.e. lack), contradiction and contrariety, which Lieber (2004) refers to as real negative meanings, and reversativity.<sup>9</sup> Before we continue with our discussion of the different meanings associated with negative prefixes, the concepts contradiction and contrariety need a bit of explanation.

Two expressions are contradictories when they cannot both be true at the same time, nor false at the same time, like the pair in (18a) and (18b).

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

However, truth values cannot be assigned to terms. Since we are dealing with morphology, terms will be relevant in this chapter and so it matters to know what the notion contradiction means if applied to two terms. Two terms are contradictories when they exclude any middle term, as in (19) (Horn 2017:83).

- (19) a. black / non-black  
b. odd/even

Two expressions are each other's contraries when they cannot be true together, but can be false together. Applied to terms this means that contrary terms, like (20a) and (20b), allow a middle, which is illustrated by (20c).

- (20) a. happy.  
b. unhappy.  
c. neither happy, nor unhappy

Much more can be said about contradiction and contrariety, and about the history of these concepts, but I want to refer the reader to Horn (1989) for detailed discussion of these concepts.

When it comes to the different meanings associated with negative prefixes, and then in particular the difference between contradiction and con-

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*around with*, and see footnote 4 in this entry for a short elaboration on this issue.

<sup>9</sup>Privation and reversative readings do not arise with *non-* (Lieber 2004:114)

trariety, there are 2 main positions: 1° the different meanings are not associated to the affixes themselves; 2° the different meanings are a consequence of inherent differences in the negative affixes. We will discuss proponents of these positions as we go along.

Under the first position, of which Lieber (2004, 2005) and Bauer et al. (2013b) are proponents, there is no ‘special’ semantics attributed to the negative markers in (17). Differences in the meaning of these markers are a consequence of differences in the semantics of the predicate to which they attach. Lieber (2004) argues that all negative affixes in English share the same underlying featural skeleton. The skeleton of the negative prefixes *iN-*, *un-*, *dis-* and *non-* is as in (21). The skeleton of the denominal adjectivizing privative *-less*, get a slightly different treatment in Lieber’s work. In addition to [-Loc], this affix also has [-dynamic] in its skeleton, (22), capturing the fact that *-less* is only compatible with states, whilst *iN-*, *un-*, *dis-* can combine with adjective, nominals and verbs, as illustrated in (23)-(26) (Lieber 2004:113).

- (21) [ – Loc ([ ], < base > )]
- (22) [ – dynamic, – Loc ([ ], < base > )]
- (23) un-
  - a. on A: unbreakable, unhappy
  - b. on N: unease, untruth, uncola
  - c. on V: undress, uncork, unlearn
- (24) in-
  - a. on A: inaccurate, infinite, inarticulate
  - b. on N: incapacity, inaction
- (25) non-
  - a. on A: nonmoral, nonviolent, nonflammable
  - b. on N: nonsmoker, nonviolence, nonpayment
- (26) dis-
  - a. on A: discourteous, disloyal, disengaged
  - b. on N: discomfort, disrespect
  - c. on V: dislike, disobey, disrobe

The bracketing structure or skeleton in (21) and (22) should be read as follows: *iN-*, *un-*, *dis-*, *non-*, *-less* are characterized by the feature [-Loc] which is applied to a base. In Lieber’s work [+Loc] is the characterizing feature of stative verbs like *exist*, *stay*, *remain*, ... and prepositions like *over-*, *after-*, *by-*, *down-*, *off-*, *through-*. Absence of Loc, [-Loc], yields predi-

cates like *lack*, *absent* and hence denotes nonexistence or nonlocation. The reversative meaning of *un-*, as in *undress* or *disrobe*, is derived from the interaction between the general negative [-Loc] feature taking scope over a verb that denotes a result that is not permanent or fixed (Lieber 2004:117). It is thus thanks to the base that the reversative reading arises. Lieber thus argues that it is unnecessary to postulate special skeletons for reversative *un-*, just as it is also unnecessary to postulate specific skeletons for contradiction and contrariety within her approach. She argues that contrariety arises when [-Loc] applies to gradable bases and contradiction when it applies to nongradable bases. Support in favour of her claim comes from the behaviour of *non-*, which is usually considered to be a robust contradictory inducing prefix, but which can nevertheless give rise to contrariety, as illustrated in (27) (Lieber 2004:114).

- (27)    a.    violent  
           b.    nonviolent  
           c.    (The movie is) neither violent nor nonviolent

The same is true for the interaction of negative prefixes and nominals. Again there is no need to specify a specific lexical semantics for the various negative prefixes, Lieber argues: the different readings, e.g. privation, contradiction and contrariety, arise due to the scalar or nonscalar nature of the nominal base. However, Lieber's lexical semantics cannot account for the fact that certain categories, like nominals, combine only productively with a particular type of negative marker, i.e. *non-*. Moreover, even though it is true that *non-* can occasionally give rise to contrariety, it still remains a fact that if several affixes combine with the same base, as in (28), *non-* always gives rise to the most descriptive and contradictory reading, *un-* to a reading that is more contrary in nature and *iN-* to the sharpest contrary reading, as pointed out by Horn (1989:281).

- (28)    a. inhuman    unhuman    nonhuman  
           b. irreligious    unreligious    nonreligious  
           c. impious    unpious    nonpious

Krifka (2007), also a proponent of the idea that the different readings are not a consequence of different semantics inherent to the affixes, takes a different position altogether. He argues that negative prefixes give rise to antonyms that are contradictories, not contraries. Even though Krifka's goal is an account of double negatives like *She is not unhappy* and the fact the negations in these do not cancel each other out, it is unclear how he would be able to account for (28) if differences in negative meaning arise

solely as a consequence of pragmatics.

A proponent of the position that the different readings are at least partly related to the semantics of the different affixes is Horn (1989). Like Lieber, Horn (1989:281) also recognizes the role of the gradability of the base in the eventual negative reading: scalar predicates can give rise to contrary readings, but this is not necessarily the case. The nature of the negative particle or affix also matters for Horn. Support for this idea comes from the data in (28) where it is clear that the affix determines the reading and not the base. Moreover, a prefix like *un-* is incompatible with binary ungradables like for instance *\*unmale* or *\*unfemale*, suggesting that something inherent to *un-* does not square well with binary ungradability. If it is compatible, the reading of the base becomes gradable, as for instance in the case of *uneven*. Horn (1989:517) is very concrete in assigning contrary semantics to semiproductive *un-* with adjectival gradable predicates. However, this does not mean that *un-* cannot yield contradictories, as already pointed out by Jespersen (1917:144), and also extensively discussed by Horn (1989:329-330): *un-* can give rise to contradictory readings as for instance in *unworthy* or *unable*, or in its more productive usage with derived adjectives ending in *-able/-ible* or participial suffixes due to the fact that these (derived and underived) bases are weak scalar predicates and the contradictory reading is the strongest negative reading weak scalar predicates can get. For unproductive *iN-* it is discussed that it usually gives rise to contrary and often depreciatory readings (in line with Zimmer (1964)), but occasionally *iN-* also seems to give rise to contradictories as for instance in *intransitive*. Finally, contradictory semantics is assigned to *non-* (Horn 1989:281) and also to sentential *n't* in copular clauses (Horn 1989:517). It seems that by putting the origin of the different meanings either in the prefixes or in the predicates, some aspects of the distribution and readings of the prefixes cannot be captured. In section 4 yet another account will be discussed which takes a more syntactic approach to these facts and combines aspects of the two positions discussed here.

The discussion up until now has not yet shown us anything that is problematic for the more traditional distinction between syntactic and morphological negation. However, in what follows such a problematic case will be discussed, providing support to the idea that the relevant distinction to work with in the domain of negation is the distinction between low and wide scopal negative markers rather than between morphological and syntactic negation. The case in point has been frequently discussed in the morphological literature on LSN markers and pertains to the fact that there is a tendency to combine negative affixes with positive adjectives to form opposites (see (29a)), but that negative adjectives are hardly ever

combined with negative affixes to form positive meanings, as shown in (29b), in spite of the fact that regular non-affixal negation is compatible with negative adjectives, as illustrated in (29c) (cf. Horn (1989:274-275) for a similar table, without the third column.) Zimmer (1964) was the first linguist to write extensively about this phenomenon, but he credits the German jurist Rudolf von Jhering (1883) with the first observation of this phenomenon (Jhering 1923), so the original observation may be much older.

(29)	a.	unhappy	b.	*unsad	c.	not sad
		unwise		*unfoolish		not foolish
		unclean		*undirty		not dirty
		unfriendly		*unhostile		not hostile
		unhealthy		*unsick		not sick
		unkind		*unrude		not rude
		untrue		*unfalse		not false
		uneasy		*undifficult		not difficult

Before we discuss why (29c) is acceptable, but (29b) is not, we will first focus on the pattern in (29a, b).<sup>10</sup> Zimmer (1964) sets up a cross-linguistic investigation to verify the hypotheses in (30).

<sup>10</sup>Zimmer (1964:36) mentions that there are a few exceptions to the pattern in (29b). However, Bauer et al. (2013a:382) argue that “what Zimmer calls ‘surprising exceptions’ are neither particularly exceptional, nor particularly surprising.” They list *unafraid*, *unangry*, *unanxious*, *unbald*, *unbare*, *unbitter*, *unbogus*, *uncoy*, *uncrazy*, *uncruel*, *undead*, *unevil*, *unfake*, *unfraught*, *unhostile*, *unhumid*, *unjealous*, *unlame*, *unlazy*, *unmad*, *unsordid*, *unsurly*, *unvulgar*, *unweary*, *unpoor*, *unsick*, *untimid*, *unugly* from the COCA as “counterexamples to Zimmer’s hypothesis.” However, Bauer et al. (2013a:382) do not mention the frequency of these items. A search in COCA shows that this list is far less threatening to Zimmer’s hypothesis than what it looks like at first sight. Apart from *unafraid* and *undead* which occur 614 and 510 times respectively, all other examples occur only once or twice in the COCA. It is clear that this very low frequency strongly suggest that these items can be considered a consequence of the creative use of language. The examples *unafraid* and *undead* are more problematic at first sight. For *unafraid* it can be argued that the word is underlyingly not simplex and contains a preposition (De Clercq & Vanden Wyngaerd 2019:fn34). If we take a closer look at *undead*, a similar reasoning seems to apply to at least half of the occurrences of *undead*. In half of the cases we are not dealing with a simplex adjective, but with a nominalized adjective, i.e. *the undead*. If nominalizing structure intervenes between the prefix and the base, then the prefix cannot be argued to attach to a simplex base and hence cannot be considered a counterexample to the hypothesis (see the discussion of Siegel (1977) in the main body of article). For the other half of the cases I also assume that the creative use of language lies at the origin of the extensive usage of the word. More in particular, the main usage of the word as referring to corpses that are somehow reanimated by supernatural forces can be traced back to Stoker’s famous novel *Dracula*, where the concept referred to vampires.

- (30) a. Negative affixes are used primarily with adjectival stems that have a positive value on evaluative scales such as “good-bad”, “desirable-undesirable”.  
 b. Negative affixes are not used with adjectival stems that have a negative value on evaluative scales such as “good-bad”, “desirable-undesirable”.

On the basis of cross-linguistic research Zimmer (1964:79) argues that the hypotheses in (30) are not tenable as linguistic universals. However, he also suggests that it becomes more plausible as a universal if only underived adjectives are considered. This is also what can be concluded on the basis of a similar set of data of negatively affixed adjectives in (31)-(32) (Siegel 1977:190-191).

- (31) a. \*undishonest  
 b. \*undiscourteous  
 c. \*undisloyal
- (32) a. undisheartened  
 b. undiscoverable  
 c. undistracting

Siegel (1977:190-191) accounts for these data by proposing that negatively affixed bases cannot take another negative affix, unless when one of the two negative affixes is contained in another cycle, i.e. when there is more structure in between the two negative affixes. This is illustrated in (33): *un-* and *dis-* are structurally adjacent in (33), whereas they are not in (34) where other derivational morphology intervenes between the two negations (see also Horn (1989:277) for discussion).

- (33) a. \*[<sub>A</sub> un [<sub>A</sub> dis [<sub>A</sub> honest ]]]  
 b. \*[<sub>A</sub> un [<sub>A</sub> dis [<sub>A</sub> courteous ]]]  
 c. \*[<sub>A</sub> un [<sub>A</sub> dis [<sub>A</sub> loyal ]]]
- (34) a. [<sub>A</sub> un [<sub>A</sub> [<sub>V</sub> dis [<sub>V</sub> hearten ]] ed ]]  
 b. [<sub>A</sub> un [<sub>A</sub> [<sub>V</sub> discover ] able ]]  
 c. [<sub>A</sub> un [<sub>A</sub> [<sub>V</sub> distract ] ing ]]

De Clercq & Vanden Wyngaerd (2017, 2019) approach the data and observations from Zimmer (1964), Siegel (1977) and Horn (1989:277) in a syntactic way and add an element to the entire discussion that provides support to the idea that the divide between syntactic and morphological negation is blurry or non-existent. De Clercq & Vanden Wyngaerd (2017, 2019) argue that the same reasoning adopted in Siegel can explain the

data in (29)[a, b] and in (31)-(32) alike. On the assumption that negative adjectives contain a negative feature negative markers cannot be structurally adjacent to another negative feature whether in the form of a negative adjective or in the form of another negative marker, i.e. there is a syntactic restriction against structurally adjacent negative features. Put differently, stacking scopally identical negative markers is disallowed. Counterexamples, as in (32), which seem to allow for the combination of a negative marker and a negative adjective, can be explained thanks to the observation that in these cases the negative markers attach to derived adjectives and hence that there are intervening levels of structure between the two negative features, i.e. those examples are instances of structural nonadjacency. The same is true for those data in (29)[c]: negating negative adjectives is allowed when there are intervening levels of structure between the two [neg]-features.

Importantly, De Clercq & Vanden Wyngaerd (2017, 2019) add a crucial set of data to their account. They start by showing that the restriction that we see in English with negatively affixed adjectives, (31), and negative adjectives, as in (29), is also valid in Dutch and French (cf. also Zimmer for the fact that this restriction pertains to other languages). However, in these languages, the same restriction applies also to instances of non-affixal LSN markers, i.e. to cases of ‘syntactic’ negation and hence not only to so-called ‘morphological’ negation. The LSN marker *weinig* ‘few’ in Dutch, as well as the LSN marker *peu* in French are subject to the same restriction as discussed for the data in (29) and (31)-(32): *weinig/peu* cannot combine with negative adjectives, illustrated for Dutch in (35), nor with negatively prefixed adjectives, (36).

- (35) a. *weinig actief*/\**passief*  
           little   active/passive
- b. *weinig gezond*/\**ziek*  
           little   healthy/sick
- (36) a. *weinig geloofwaardig*/\**ongeloofwaardig*  
           little   credible/unbelievable
- b. *weinig verstandig*/\**onverstandig*  
           little   intelligent/unintelligent

De Clercq & Vanden Wyngaerd (2019) argue that these facts - together with data equivalent to those discussed for English in (29) and (31)-(32) - can be explained as a consequence of a general syntactic constraint against stacking scopally identical negative markers. They refer to it as a \*Neg-Neg constraint, a constraint for which Collins (2018) has also argued in-

dependently, and they consider it part of a more general constraint on the structure of the functional sequence, i.e. the functional sequence does not consist of two identical consecutive features (\*X-X). The data in (35)-(36) falsify the idea that so-called ‘morphological’ negative markers are subject to different rules than ‘syntactic’ negative markers and hence provide an argument against the Lexical Integrity Hypothesis and in favour of treating all negative markers within the same module. In section 3 we show that this \*NEG-NEG constraint is not only relevant for LSN markers, but also for WSN markers.

### 3 Wide scope negative markers

The aim of this section is to illustrate by means of negative suppletive verbs from Korean that negative markers/verbs which are treated as instances of syntactic negation are also subject to 1) morphological alternations and 2) to stacking rules which are also relevant to LSN markers that are usually treated within morphology. The present section thus provides another argument to classify negative markers in terms of their scope as LSN and WSN and not in terms of whether they pertain to a particular module of the grammar.

Chung (2007) discusses the negative suppletive forms of the verbs ‘to know’ (37) and ‘to exist’ (38) in Korean, and accounts for them in the framework of Distributed Morphology (henceforth DM). DM is a framework that breaks with lexicalism, i.e. it does not adopt the Lexicalist Hypothesis (cf. section 1). However, the framework keeps syntax and morphology separated in different modules, be it that Morphology is ‘distributed’ and partly precedes and follows syntax (Halle & Marantz 1993, Harley & Noyer 1999).

- (37) a. na-nun eysute-lul al-n-ta.  
I-TOP Esther-ACC know-PRS-DECL  
‘I know Esther.’  
b. na-nun eysute-lul molu-n-ta.  
I-TOP Esther-ACC NEG.know-PRS-DECL  
‘I don’t know Esther.’
- (38) a. thuroi mokma-nun iss-ess-ta.  
Troy wooden.horse-TOP exist-PST-DECL  
‘The Trojan Horse existed.’  
b. thuroi mokma-nun eps-ess-ta.  
Troy wooden.horse-TOP not.exist-PST-DECL



‘The Trojan Horse didn’t exist.’

The negative suppletive forms in (37b)-(38b) behave exactly like regular Korean WSN markers. Korean has a so-called long and short WSN marker, both consisting of *an(i)*. With long form negation (as in (39a)) the negator is preceded by the nominalized verbal predicate (through addition of morpheme *-ci*), and followed by a light verb, *hata*. Short form negation is illustrated in (39b) and consists of *an(i)* preceding the main predicate.

- (39) a. eysute-ka ca-ci an(i) ha-n-ta.  
Esther-NOM sleep-NMLZ NEG do-PRS-DECL  
‘Esther doesn’t/isn’t sleeping.’  
b. eysute-ka an(i) ca-n-ta.  
Esther-NOM NEG sleep-PRS-DECL  
‘Esther doesn’t/isn’t sleeping.’ (Chung 2007:98)

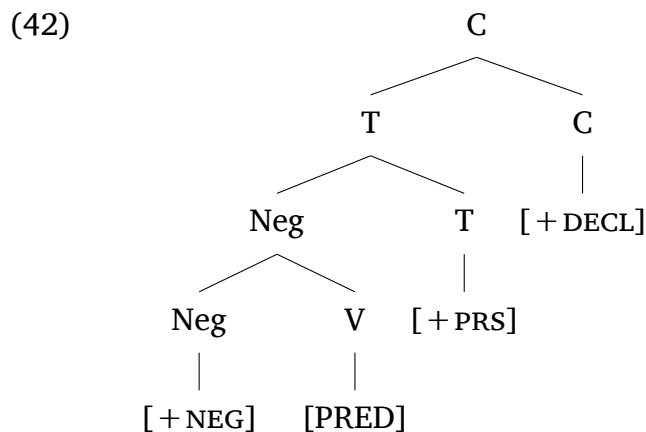
Chung (2007) argues that the suppletive negative forms *molu-* ‘not to know’, (37b), and *eps-* ‘not to exist’, (38b), behave like short form negation in terms of their interactions with quantifiers, licensing of negative polarity items and stacking with other negative markers. Just like short form *an(i)* cannot stack onto another short form negator, as shown in (40), the same is true for short form *an(i)* and the suppletive verb, (41).

- (40) a. \*con-un an(i) an(i) sengsilha-ta.  
John-TOP NEG NEG sincere-DECL  
b. \*i an-un an(i) an(i) kanungha-yess-ta.  
this plan-TOP NEG NEG possible-PST-DECL  
c. \*ku noli-nun an(i) an(i) kencenha-ta.  
the/that game-TOP NEG NEG sound-DECL  
(Chung 2007:100)
- (41) a. \*na-nun eysute-lul an(i) molu-n-ta.  
I-TOP Esther-ACC NEG NEG.know-PRS-DECL  
Intended: ‘I don’t not know Esther.’  
b. \*thuroi mokma-nun an(i) eps-ess-ta.  
Troy wooden.horse-TOP NEG NEG.exist-PST-DECL  
Intended: ‘The Trojan horse didn’t not exist.’

Consequently, Chung argues that the type of negation contained in the suppletive portmanteau verbs is a real ‘syntactic negator’, just like *ani* and *mos* are real syntactic negators, both in their short and in their long form. The constraint on stacking that we perceive in (40) and (41) is

reminiscent of what we discussed for LSN markers in section 2: there seems to be a constraint on stacking scopally identical negative markers, i.e. a \*NEG-NEG constraint. The data in this section show that this constraint does not only apply to LSN markers, but also to WSN markers and hence adds to the general idea laid out in this entry: the distinction between morphological and syntactic negation is an artificial distinction and cannot be maintained.

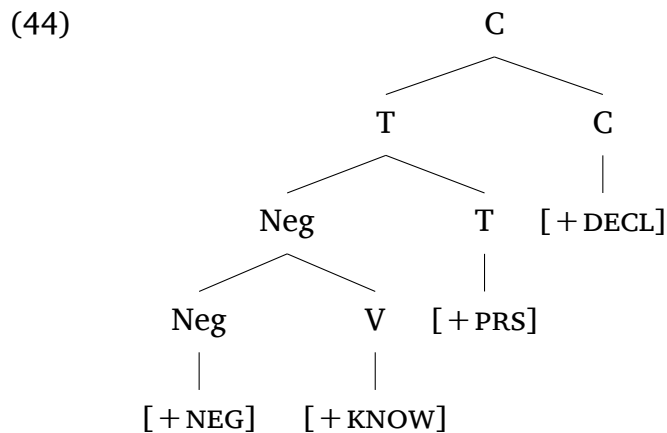
Another reason why this divide cannot be maintained comes from the fact that syntactic negation can also be subject to morphological changes. Since the behaviour of *ani* ‘not’ + predicate and the suppletive verbs *molu* ‘not to know’ and *epss-* ‘not to exist’ is syntactically comparable, Chung (2007) argues that the difference between them must arise postsyntactically, i.e. in morphology. Within his approach to morphology, i.e. Distributed Morphology, morphology comes (partly) after syntax. The syntactic structure for both *ani* ‘not’ + predicate and the suppletive negative verbs must thus be roughly the same, as in (42).



The vocabulary item for the regular negator is in (43).

(43) [+NEG] ⇔ /an(i)/

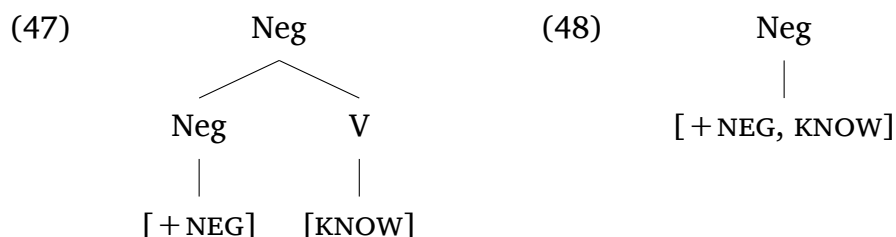
The question is now how suppletion can arise from this structure. Chung assumes that the verbs KNOW and EXIST must be somehow enriched with a particular feature, illustrated here for KNOW in (44) with the presence of [+know]



It is thanks to this feature on the predicate KNOW and the presence of special rules for Vocabulary insertion, (45)-(46), that postsyntactically a morphological operation will kick in to manipulate this structure to allow the insertion of the lexical items in (45)-(46) (Bobaljik 2017).

- (45) a. [+NEG, KNOW]  $\Leftrightarrow$  /molu/  
 b. [KNOW]  $\Leftrightarrow$  /al/  
 (46) a. [+NEG, EXIST]  $\Leftrightarrow$  /eps/  
 b. [EXIST]  $\Leftrightarrow$  /iss/

This operation is called *Fusion*. If you want to keep the same syntax (for the reasons mentioned above) for suppletive and non-suppletive negative predicates, then a morphological operation of some sort is needed in DM to capture the difference between suppletion and non-suppletion. Due to fusion insertion of *ani* ‘not’ is prevented and the structure in (48) is created, giving rise to the possibility of vocabulary insertion with *molu-* (or with *eps-* in case the structure has the feature [EXIST]).



If no Fusion takes place, i.e. in the absence of the features [+exist] and [+know], the nodes proceed to Vocabulary Insertion and *ani* will be inserted because of (43).

The advantage of this type of approach is that it can capture the idea that syntactically the suppletive and non-suppletive negative predicates are the same. It is only postsyntactically, in the morphological component, that allomorphy arises. In spite of the fact that Chung’s (2007) analysis is elegant in many ways, this type of proposal faces a few problems, both at a more general theoretical level and—most importantly for our present purposes—at the level of the grammar of negation. I will first explain what is problematic at a more general level, to then zoom in on the problem related to negation.

The general problem with the analysis is discussed in detail by Caha (2018). As mentioned before, the main reason for the Fusion operation is related to the fact that Vocabulary Insertion in Distributed Morphology happens in terminal nodes. In order to create a terminal node, an operation is needed to create one node out of two nodes. It is at this point that the account becomes problematic. In order to know whether the two heads should fuse, i.e. whether a suppletive form should be inserted, access to the lexicon and hence to Vocabulary Insertion or lexicalisation is required. However, if that takes place Fusion can no longer happen, because Fusion is an operation that precedes Vocabulary Insertion. So basically, there is a timing paradox, which follows from the requirement that insertion happens at the level of a terminal node and from the fact that Fusion precedes lexicalisation. A system like Nanosyntax (Starke 2009, Caha 2009, Baunaz et al. 2018), that does away with the syntax-morphology divide, and that makes use of phrasal spellout could capture these facts without taking recourse to Fusion and without giving rise to a timing paradox. I refer the reader to Caha (2018) for a more detailed comparison of how these facts would be dealt within Nanosyntax.

Besides this more general and technical point, some issues arise with respect to negation. As mentioned before, the stacking data in (40) and (41) are reminiscent of the \*NEG-NEG constraint that we discussed for English in section 2. As Chung (2007) points out, the same restriction can be observed with LSN prefixes in Korean: none of the prefixes in Table 1 can be stacked onto one another.

Table 1: After Kim-Renaud (2009:132)

prefix	meaning	example	gloss
mu	absence	musosok	independent
mi	unattaining	miwansǒng	unfinished
mol	demise	molsangsik	ignorance
pi	counter	pijongsǎng	abnormality
pul/pu	absence	pujayu	lack of freedom

However, stacking of *ani* on top of a negative prefix of Table 1 is possible, suggesting that these negators are of a different scopal type, (49).

- (49) con-un an(i) pulsengsilha-ta.  
 John-TOP NEG insincere-DECL  
 ‘John is not insincere.’

This provides support to the idea that the same stacking constraint that we discussed for LSN is valid for WSN as well in Korean. Since this same constraint seems to be valid, the default assumption is that LSN and WSN markers share a property, i.e. [NEG]. However, if we assume that there is [NEG] in both *ani* and the prefixal Korean negators, then the presence of [NEG] in the structure (44) may not lead to insertion of the correct negator: either *ani* can be inserted or one of the negative prefixes, because all of them consist of [neg]. Naturally, one could argue that the common core of these negators is not syntactic [NEG] and that the stacking restriction is purely semantic, but if this were true, then we face the problem of accounting for the fact that multiple negators can occur within one clause, as long as they are not scopally identical, as shown by the stacking of *ani* and a negative prefix in (50), as well as the stacking examples from English in (51).

- (50) con-un an(i) pul-sengsilha-ta.  
 John-TOP NEG NEG-sincere-DECL  
 ‘John is not insincere.’ (Chung 2007:100)
- (51) a. This sentence is not non-ambiguous.  
 b. He is not unhappy.

Summarizing, the stacking examples point to the fact that negative prefixes and *ani* must have something in common, i.e. [NEG], but they must also be somehow different since the combination of the two within one clause is grammatical, whilst the combination of two prefixes or twice *ani* is not. We will further elaborate on this stacking constraint in the next sec-

tion, because it lies at the heart of understanding the internal structure of negative markers. Crucial to point out here is that exactly as we saw with the Dutch *weinig*-data in section 2, the Korean stacking data provide support against the Lexical Integrity Hypothesis for the domain of negation, i.e. the same stacking rules seem to work across the morphology-syntax divide, providing yet another argument to discuss negation in terms of its scope and to give up the distinction between morphological and syntactic negation. Moreover, the Korean data also show that the term syntactic negation is a misnomer for negative suppletive verbs that necessarily undergo morphological processes to get their irregular appearance. In the next section we will look at syncretism patterns between LSN and WSN markers and we will argue that these patterns also provide an argument to treat all negative markers in the same module of the grammar.

## 4 Negation and syncretisms

What is clear from the discussion in sections 2 and 3 is that there are reasons to stop treating negative markers as belonging to either morphology or syntax and that the scopal properties of a negative marker are what determines its distribution. In this section we will look at more support for this claim.

The support comes from work that compares the distribution of LSN markers and WSN markers from a typological perspective. Most typological accounts of negation (Dahl 1979, 2010, Payne 1985, Dryer 1988, 2011, Miestamo 2005, Bond 2013) are concerned with WSN markers, i.e. main clause negation, sentence negation or ‘standard negation’. There are a few small-scale crosslinguistic comparisons of LSN markers (Zimmer 1964, Horn 1989, Cartoni & Lefer 2011). Horn’s (1989) book offers a first step towards comparing LSN and WSN markers. De Clercq (2013), De Clercq (2018b) picks up on this line in Horn’s work and provides a small-scale typological survey of both LSN and WSN markers.

De Clercq (2013) compared 9 different languages and recently De Clercq (2018a) extended the sample up to 22 typologically diverse languages. Her data are confined to LSN and WSN markers in copular clauses with (adjectival/nominal) predicates. De Clercq (2013) made a classification of negative markers based on the stacking (cf. sections 2- 3), scopal, functional and semantic (cf. section 2) properties of negative markers. De Clercq’s labels refer to the scope positions of these markers in clausal syntax. Q refers to Quantity Phrase (QP), a position in the extended functional projection line of adjectives (Corver 1997) hosting elements like for instance

*much*, Class refers to Classifier Phrase, a projection in the extended projection line of nominals (Borer 2005) hosting classifiers, Foc refers to Focus Phrase, a projection that has been argued to appear both above the verb phrase (Belletti 2001) and in the left periphery of the clause (Rizzi 1997) hosting focal operators, and T refers to Tense Phrase, a projection hosting tense features in clausal syntax. Table 2 is a summary of De Clercq’s classification with examples from English. In addition to De Clercq’s labels, the traditional labels that go back to Aristotle and Frege (Horn 1989) are also mentioned in table 2. The types of negation discussed in the table are ordered from widest to narrowest scope. It should be kept in mind that the table is a summary and does not do justice to all details, for instance with respect to the property of certain markers to give rise to both contradiction and contrariety (cf. section 2).

Table 2: Classification of negative markers

	<b>T<sup>neg</sup>-markers</b>	<b>Foc<sup>neg</sup>-marker</b>	<b>Class<sup>neg</sup>-markers</b>	<b>Q<sup>neg</sup>-markers</b>
	<i>Predicate denial</i>	<i>Predicate negation</i>	<i>Predicate term negation</i>	
<b>scope over</b>	tensed predicate	untensed predicate	predicate term	predicate term
<b>stack</b>	on Foc, Class, Q	on Class, Q	on Q	-
<b>semantic</b>	contradiction	contradiction	contradiction	contrariety
<b>function</b>	denying	contrasting/modifying	classifying	characterizing
	<i>n’t</i>	<i>not</i>	<i>non-/not-</i>	<i>un-/iN-/ dis-, a-</i>

Importantly, De Clercq (2013), De Clercq (2018b), whose study is concerned with negative markers that combine with adjectival bases, subdivides the LSN markers in two groups: the *non*-type negative markers and the *un*-type negative markers (also including the less productive *a-*, *iN-*, *dis-*-negative markers). The reason for this is that they tend to give rise to different semantics and occasionally these negative markers can be stacked amongst each other, as illustrated for English in (52) and for Greek in (53).<sup>11</sup>

(52) Nonunhappy people are the best. (p.c. James McCloskey).

<sup>11</sup>An anonymous reviewer points out that the combination of *non-* and *un-* is rare as in (52), and that the prefixal use of *not-* is more common in combination with *un-*, i.e. *not-unhappy*, suggesting that English has another Class<sup>neg</sup>-marker in addition to *non-*, i.e. *not-*. Also in Dutch and German the WSN marker can be used as a Class<sup>neg</sup>-marker. The reviewer also points out that *nonimmoral* and *nonillegal* are more acceptable. Also *uninfallible* is possible, which is not immediately expected under De Clercq’s account,. However, the semantics of *infallible* is positive in spite of being morphologically negative, which could help to explain the stacking facts. It is clear that more research needs to be done as to what stacking is possible amongst these LSN markers.

- (53) Ine mi an-ithikos.  
 be.PRS.3SG NEG NEG-moral  
 ‘He is non immoral.’ (De Clercq 2013:42)

Importantly, low scope *not*, which we introduced as ‘constituent negation’ in the introduction also appears in the table, as a  $\text{Foc}^{neg}$ -marker.

De Clercq (2013), De Clercq (2018b,a) found that syncretism patterns can be found between LSN and WSN markers that respect the \*ABA generalisation (Johnston 1996, Caha 2009, Starke 2009, Bobaljik 2012, Caha 2017, Baunaz & Lander 2018). Bobaljik & Sauerland (2018:1-2) define \*ABA as follows: *The term \*ABA generalization refers to morphological patterns in which, given some arrangement of the relevant forms in a structured sequence, the first and third may share some property ‘A’ only if the middle member shares that property as well.* With respect to negation the ‘structured sequence’ under consideration is based on a classification of negative markers according to their scopal properties, i.e. from wide to narrow or from narrow to wide, as in 2. The investigation of negative markers in a typological sample shows that negative markers can be ordered from wide to narrow scope and that no ABA pattern arises, i.e. the morphology of negation follows the natural scope of negation. Table (54) illustrates this for the extended sample from De Clercq (2018a).



	<b>T<sup>neg</sup></b>	<b>Foc<sup>neg</sup></b>	<b>Class<sup>neg</sup></b>	<b>Q<sup>neg</sup></b>
Greek	dhen	oxi	mi	a-
French (formal)	ne ...pas	pas	non	iN-
Korean	(-ci) an(i) (ha-) (-ci) mos (ha-)	an(i) mos	pi- mol-	pul- mol-
English	not	not	non	un-
French (informal)	pas	pas	non	iN-
Swedish	inte	inte	icke-	o-
Turkish	degil	degil	gayri/olmayan	-siz
Japanese	nai	nai	hi-	hu(/bu)/mu
Khwe	vé	ɲya	ó-	ó
Chinese	bù	bù	fēi	fēi
MS Arabic	laa	laa	ghayr-	ghayr-
Persian	na	na	qheyr-	qheyr-
Mayalayam	alla	alla	a-	a-
Moroccan Arabic	ma (ši)	muši	muši	muši
Hungarian	nem	nem	nem	-tElEn
Hebrew	lo	lo	lo	bilti-
Dutch	niet	niet	niet-	on-
Russian	ne	ne	ne	ne-
Czech	ne-	ne	ne-	ne-
Malagasy	tsy	tsy	tsy	tsy
Hixkaryana	-hi-	-hi-	-hi-	-hi-
Tümpisa Shoshone	ke(e)	ke(e)	ke(e)	ke(e)

(54)

Almost all accounts of \*ABA consider the \*ABA effect as a consequence of “nesting or containment relations among features, along with the assumption that linguistic rules are arranged such that a more specific rule takes precedence over (bleeds) a more general one, the so-called Elsewhere or Pāṇinian ordering (Kiparsky 1973, 1979).” (Bobaljik & Sauerland 2018:15). If we take the syncretisms in (54) and the proposed explanation for \*ABA seriously, then the divide between LSN and WSN in terms of their treatment in two separate models of the grammar cannot be maintained. As such, the paradigm in (54) provides support for a treatment of both LSN and WSN within the same module of the grammar and against the lexical integrity hypothesis (at least with respect to the domain of negation).

De Clercq (2013), De Clercq (2018a,b) and De Clercq & Vanden Wyngaerd (2018a) argue for a decomposition of negative markers on the basis of these syncretism facts. Each negative marker consists of [NEG], which is semantically the same for all markers (cf. also Krifka’s position for LSN

in section 2), and one or more other features which regulate their scopal position in syntax and influence in combination with the base the reading (privative, contradictory, contrary) they get. The higher the scope position, the more features a negative marker consists of.  $Q^{neg}$ -markers are inserted at the level of QP,  $Class^{neg}$ -markers at the level of ClassP, and so on. This account combines aspects of the two types of proposals discussed in section 2, i.e. the different readings and distributions of the prefixes are a consequence both of differences between the negative markers on the one hand and differences in the base. The account is couched in the framework Nanosyntax which takes a syntactic approach to morphology. The \*ABA effect is derived by means of phrasal spellout. For more details on spellout and lexical insertion in Nanosyntax see De Clercq & Vanden Wyngaerd (2018b), De Clercq (2018b), Caha et al. (2019).

The syncretisms observed within the domain of negation provide a strong argument to treat all negative markers, both LSN and WSN (whether affixal or independent), within one module of the grammar.

## 5 Conclusion

This article problematised the classification of negative markers as either being ‘morphological’ or ‘syntactic’. We started off by discussing the confusing nature of the terms ‘morphological’ and ‘syntactic’ negation, pointing to the fact that these terms are often used to refer to the bound or free nature of a morpheme and that this cannot be considered a valid criterion to label negative markers as ‘morphological’ or ‘syntactic’. We showed that some instances of so called syntactic negation have properties of morphological negation and that constraints we see in the domain of morphological negation are also valid at the level of syntax. On the basis of these facts we argue that there are reasons to give up the divide between morphology and syntax and that it is more useful to classify negative markers in terms of their scope, i.e. as LSN and WSN markers. We moved on to discuss the main strands of research that focussed on LSN markers and ended that overview with data from LSN markers in Dutch and French that are problematic for the Lexical Integrity Hypothesis and hence for any theory that wants to keep the rules of morphology and syntax separate. Next we zoomed in on a case of WSN in Korean that displays sensitivity to the same constraint that we also discussed for LSN, pointing again to the fact that the same rules seem to apply across the morphology-syntax divide. In addition, the Korean discussion also shows that in order to capture suppletion and the fact that these suppletive verbs behave syntactically like

regular sentential negative markers, a strict subdivision between syntax and morphology is problematic. We ended our discussion with data from a crosslinguistic study which shows that there are meaningful syncretism patterns between negative markers across the morphology-syntax divide, i.e. between LSN and WSN markers, hence arguing once more in favour of a syntactic approach to morphology.

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