

# The Syntax of Surprise



# The Syntax of Surprise:

## *Expletive Negation and the Left Periphery*

By

Matteo Greco

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# INTRODUCTION

Negation is a linguistic universal (Horn 1989; Bernini and Ramat 1996; Horn and Kato 2000; Speranza and Horn 2012). From a semantic point of view, negation is a one-place operator reversing the truth-value conditions of the sentence in which it occurs. Consider, for example, the following sentences:

- (1) a. Luca is smart  
b. Luca is *not* smart

The sentence in (1b) is true if and only if the sentence in (1a) is false, and *vice versa*. However, even if the logical meaning of negation is clear in this simple pair, its contribution to the natural languages is not always so clear and transparent (cfr. Taglicht 1984). According, for example, to Jespersen (1924) and Horn (2010), an individual does not often interpret linguistic negation as a pure logic operator. To illustrate this, consider the sentences in (2):

- (2) a. Rimarrò alla festa finché arriva Gianni  
stay.1<sup>st</sup>sing.fut to the party as long as arrives Gianni  
'I will stay at the party until Gianni arrives'  
b. Rimarrò alla festa finché *non* arriva Gianni  
stay.1<sup>st</sup>sing.fut to the party as long as *neg* arrives Gianni  
'I will stay at the party until Gianni arrives'

The sentences in (2a-b) minimally differ in the occurrence of the negative marker *non* in the temporal clause. However, their meaning does not change (as the English translation shows): the arrival of Gianni is the event that marks the last moment in which the speaker stays at the party. Whereas the form in (2a) is unproblematic because its affirmative polarity matches the truth-value conditions of the proposition, the one in (2b) is not. In fact, the occurrence of negation should change its meaning (like in 1b) but that is not the case: the temporal clause is still affirmative regardless of the occurrence of the negative marker *non*. This particular use of negation is generally called *expletive* or *pleonastic negation* (cfr. Jespersen 1917), since the negative operator does not affect the propositional meaning of the sentence.

The fact that an apparently easy true-operator shows an opposite value to its nature is undoubtedly puzzling. The main aim of this work is to shed light on expletive negation (EN) (or, at least, on a piece of it).

In the past fifty years, there has been a great effort in this field to identify the pragmatic, semantic and syntactic conditions governing the use of expletive negation (cfr. Horn 2010 and the references therein). In this book I want to focus on an unnoticed case (to the best of my knowledge) in Italian, which shows some unique features possibly assisting us in understanding this phenomenon. Consider, for instance, the following sentence:

- (3) E non mi è scesa dal treno Maria?!  
 and neg Cl.to me is got off-the train Maria  
 ‘Maria got off the train!’

The meaning of the sentence (3) is affirmative regardless of the occurrence of the negative element *non* and, therefore, it has to be considered an expletive negation clause. Pragmatically, (3) conveys a strong sense of surprise since the speaker is struck by an unexpected fact and s/he wants to communicate it (in our case, the fact that Maria got off the train). Starting from this particular pragmatic requirement, I will call such structures *Surprise Negation Sentences* (Snegs).

Before discussing the other features of Snegs, I want to introduce a general fact affecting the Italian negation. Italian displays the same negative marker *non* both for standard and for expletive negation as the following sentences show:

- (4) a. *Non* è scesa dal treno Maria (Standard Negation)  
 neg is got off-the train Maria  
 ‘Maria did not get off the train’  
 b. *Non* è scesa dal treno Maria?! (Sneg)  
 neg is got off-the train Maria  
 ‘Maria got off the train!’

In (4a), *non* realizes a case of standard negation (SN); in (4b), it realizes a case of expletive negation. Crucially, Snegs display several peculiar features forcing the expletive interpretation of the negative marker:

i. Snegs show a marked intonation blending acoustic features pertaining to both questions and exclamatives (hence the *?!* combined diacritic). Such an intonation specifically selects the Sneg reading, ruling out the standard one<sup>1</sup>:

- (5) a. Non è scesa dal treno Maria?!  
 neg is got off-the train Maria  
 .‘#Maria did not get off the train’ (#SN)  
 .‘Maria got off the train!’ (Sneg)

This particular intonation is strongly and uniquely associated with Snegs; other kinds of market prosodies such as, for example, the simple interrogative (6a) and exclamative (6b), fail to select Snegs.:

- (6) a. Non è scesa dal treno Maria?  
 neg is got off-the train Maria  
 .‘Did not Maria get off the train?’ (SN)  
 .‘#Maria got off the train!’ (#Sneg)
- b. Non è scesa dal treno Maria!  
 neg is got off-the train Maria  
 .‘Maria did not get off the train!’ (SN)  
 .‘#Maria got off the train!’ (#Sneg)

ii. Another element specifically associated with Snegs is the Ethical Dative (ED). ED is a non-argumental clitic picking out a person, either the speaker or the hearer, who emotionally participates in the event expressed by the sentence. Italian displays two forms of ED: *mi* (to me) and *ti* (to you). Consider the following sentences:

- (7) a. Laura ha vinto il primo premio alla lotteria  
 Laura has won the first prize to the lottery  
 ‘Laura won the first prize in the lottery’
- b. Laura *mi/ti* ha vinto il primo premio alla lotteria  
 Laura Cl.to me/you has won the first prize to the lottery  
 ‘Laura won the first prize in the lottery’

The sentences in (7a-b) only differ for the occurrence of the ED *mi* and *ti*; nevertheless, their propositional meaning is the same. However, the

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<sup>1</sup> I will indicate the unavailability of one of the two readings of negation—i.e. expletive or standard—by means of the special diacritic #

sentence in (7b) displays a different pragmatic nuance: the speaker, in case of *mi*, or the hearer, in case of *ti*, is particularly involved in the described fact.

Crucially, something unexpected happens when the ED co-occurs with the negative marker: only the expletive reading is available (8a), whereas the standard one is ruled out (8b):

- (8) a. *Non mi/ti* è scesa dal treno Maria?! (Sneg)  
 neg Cl.to me/you is got off-the train Maria  
 ‘Maria got off the train!’
- b. \**Non mi/ti* è scesa dal treno Maria (\*SN)  
 neg Cl.to me/you is got off-the train Maria

This particular relation with the ED represents one of the most characteristic properties of Snegs.

As seen so far, at least three elements define Snegs: the unexpectedness of the fact described by them, the particular intonation, and the co-occurrence with the ED. I will show that these features also distinguish Snegs from other types of expletive negation structures, such as negative exclamatives and negative rhetorical questions, making Snegs a unique instance of EN.

I want now to investigate three unrelated phenomena in which the distribution of Snegs appears puzzling. I will discuss them in a rather informal way, leaving a more detailed analysis to the next chapters<sup>2</sup>.

I. It is well known that Romance languages syntactically mark discourse-related phenomena, such as topicalization and focalization, by displaying a different word order than the standard. More specifically, languages such as Italian dislocate focalized and topicalized phrases in a fronted position, anticipating other elements.

Consider, for example, the case of the direct object. The standard word order of an Italian assertive sentence is *subject-verb-direct object*- like in (9a); when the direct object is focalized or topicalized, it occurs in the fronted position, giving the scrambled order *direct object- subject-verb* (9b-c).

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<sup>2</sup> This is also the reason why I will not indicate bibliographic voices.

- (9) a. Gianni ha dato *il libro* a Luca (Assertive clause)  
 Gianni has given the book to Luca  
 ‘Gianni gave the book to Luca’
- b. *LO ZAINO* Gianni ha dato *t* a Luca (non il libro)<sup>3</sup> (Foc.)  
 the backpack Gianni has given to Luca (not the book)  
 ‘THE BACKPACK Gianni gave to Luca (not the book)’
- c. *Il libro* Gianni lo ha dato *t* a Luca (Topic.)  
 the book Gianni Cl.it has given to Luca  
 ‘The book, Gianni gave it to Luca’

To take into account the fronted position of the focalized and topicalized elements in (9b-c), it has been proposed that the syntactic structure of a sentence displays some dedicated functional heads in the Complementizer Phrases (CP): the Foc<sup>o</sup> and the Top<sup>o4</sup>. Elements like *LO ZAINO/Il libro* are generated in the thematic position, as any other direct object; they then move to those heads in order to take on a specific interpretative value appearing in the fronted position.

Coming to Snegs, they show a puzzling asymmetry: they only allow fronted topicalized phrases by rejecting the focalized ones. Such an asymmetry appears evident when comparing Snegs with SN sentences: both allow a fronted topicalized phrase (10), but only the latter accepts the focalized one (11).

- (10) a. *Il libro* Gianni non *lo* ha dato a Luca (SN)  
 the book Gianni neg Cl.it has given to Luca  
 ‘The book, Gianni did not give to Luca’
- b. E *il libro* Gianni non me *lo* ha dato a Luca?! (Sneg)  
 and the book Gianni neg ED Cl.it has given to Luca  
 ‘The book, Gianni gave to Luca!’

*Context (i): ‘Maria did not get off the train’*

- (11) a. GIANNI non è sceso dal treno (non Maria)?! (SN)  
 Gianni not is got off-the train (not Maria)  
 ‘Gianni did not get off the train! (not Maria)’

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<sup>3</sup> I use the uppercase to highlight the focalized interpretation of a phrase and the notation *t<sub>i</sub>* to indicate the position in which the fronted phrases *LO ZAINO/il libro* have been generated before being moved to the CP domain.

<sup>4</sup> A more detailed discussion on the dislocation of elements in fronted positions is not crucial at the moment and I postpone it to the body of the book.

Context (ii): ‘Maria got off the train’

- (11)b. \*E GIANNI non mi è sceso dal treno (non Maria)?! (\*Sneg)  
and Gianni EN ED is got off-the train (not Maria)

The reason why Snegs do not allow fronted focalized elements does not have an immediate and intuitive explanation. Since the structure of CP plays a crucial role in the distribution of discourse-related phenomena, its relation with Snegs is the probable key to understanding the asymmetry in (10-11).

II. Another particular fact concerning Snegs is their relation to the polarity-sensitive elements usually associated with standard negation.

As is well known, languages display some grammatical elements licensed only by negation: if negation is absent, their occurrence becomes ungrammatical. Consider, for example, the distribution of the Italian adverb *affatto* (at all) in negative and affirmative sentences:

- (12)a. *Non è affatto* scesa dal treno Maria (Neg.)  
neg is at all got off-the train Maria  
‘Maria did not get off the train at all’  
b. \*È *affatto* scesa dal treno Maria (\*Aff.)  
is at all got off-the train Maria

The sentence in (12a) hosts the adverb *affatto* because of the negative marker *non*; in (12b), the negative marker is absent and the sentence becomes ungrammatical. Like the adverb *affatto*, several other elements are uniquely licensed by negation; consider, among others, the conjunction *neanche* (not also) in (13) and the negative pronouns *nessuno* (nobody) in (14)<sup>5</sup>:

- (13)a. *Non è scesa* dal treno Maria e *neanche* Gianni (Neg.)  
neg is got off-the train Maria and neither Gianni  
‘Maria did not get off the train and Gianni either’  
b. \*È scesa dal treno Maria e *neanche* Gianni (\*Aff.)  
is got off-the train Maria and neither Gianni

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<sup>5</sup> The pronoun *nessuno* can also appear in affirmative sentences when it realizes a subject or when it occurs both in questions and in protasis of conditionals. I specifically chose an example in which the clause is assertive and the pronoun realizes the direct object of the main verb; in such a context *nessuno* requires the co-occurrence with the negative marker *non* to be correctly licensed.

- (14) a. *Non* è sceso dal treno *nessuno* (Neg.)  
 neg is got off-the train nobody  
 ‘Nobody got off the train’  
 b. \*È sceso dal treno *nessuno* (\*Aff.)  
 is got off-the train nobody

To explain the pattern in (12-13-14), it has been proposed that the negative polarity-sensitive elements have to be in the scope of the negative marker *non*, syntactically represented as the head of NegP dominating TP. When it is absent, those polarity-sensitive elements cannot be licensed.

However, just the occurrence of negation is not sufficient to legitimate them. Consider the following cases:

- (15) a. \**Non* è bello che sia *affatto* scesa dal treno Maria  
 neg is nice that be.3<sup>rd</sup>sing.subj at all got off-the train Maria  
 b. \**Non* è bello che sia scesa dal treno Maria  
 neg is nice that be.3<sup>rd</sup>sing.subj got off-the train Maria  
 e *neanche* Gianni  
 and neither Gianni  
 c. \**Non* è bello che sia sceso dal treno *nessuno*  
 neg is nice that be.3<sup>rd</sup>sing.subj got off-the train nobody

The sentences in (15) display the negative marker *non*; even so, they are ungrammatical. Since the negative marker in those sentences occurs in the root clause and the polarity-sensitive elements in the embedded one, it has been proposed that the scope-relation is interrupted by the edge of the clause. Graphically, this fact can be visualized by using the following representations:

- (16) a. [<sub>CP1</sub> [<sub>NegP</sub> *non* [<sub>TP</sub> .... *affatto/nessuno/neanche*... ]]]  
 b. \* [<sub>CP1</sub> [<sub>NegP</sub> *non* ... [<sub>CP2</sub> [<sub>TP</sub> .... *affatto/nessuno/neanche*... ]]]]

The negative marker in (16a) takes TP as its argument and it scopes over it, licensing the polarity-sensitive elements as in (12a-13a-14a); in (16b), the negative marker cannot scope over the embedded TP because the CP2 represents a barrier (or a *phase* putting in minimalist words) as in (15a-b-c).

When these polarity-sensitive elements occur in Snegs, they unexpectedly still raise ungrammaticality, thus differing Snegs from standard negative sentences:

- (17) a. *Non è affatto* scesa dal treno Maria (SN)  
 neg is at all got off-the train Maria  
 ‘Maria did not get off the train at all’  
 b.\*E non mi è *affatto* scesa dal treno Maria?! (\*Sneg)  
 and EN ED.to me is at all got off-the train Maria
- (18) a. *Non è* scesa dal treno Maria e *neanche* Gianni (SN)  
 neg is got off-the train Maria and neither Gianni  
 ‘Maria did not get off the train and Gianni either’  
 b.\*E non mi è scesa dal treno Maria e neanche  
 and EN ED.to me is got off-the train Maria and neither  
 Gianni?! (\*Sneg)  
 Gianni
- (19) a. *Non è* sceso dal treno *nessuno* (SN)  
 neg is got off-the train nobody  
 ‘Nobody got off the train’  
 b.\*E non mi è sceso dal treno *nessuno*?! (\*Sneg)  
 and neg ED.to me is got off -the train nobody

Apparently, there is no reason explaining this pattern, since the negative marker and the polarity-sensitive elements belong to the same clause, both in the standard negation sentences (17a-18a-19a) and in Snegs (17a-18b-19b). Neither can this effect only be related to the expletive nature of the negative marker, since some of the polarity-sensitive elements are perfectly fine when they occur in other EN structures. Consider, for example, the cases of the negative pronoun *nobody* in *until*-clauses:

- (20) Rimarrò alla festa finché *non* arriva *nessuno*  
 stay.1<sup>st</sup>sing.fut to-the party as long as *neg* arrives nobody  
 ‘I will stay at the party until somebody arrives’

The sentence in (20) is perfectly grammatical even though negation is expletive. Again, the reason why Snegs depart from this pattern does not find an immediate explanation. Certainly, it cannot only be a semantic issue, since both standard and expletive negations can legitimate such elements.

III. Finally, there is another aspect making Snegs a peculiar case of EN: they do not have any affirmative correspondent form. More specifically, many instances of EN clauses display a correspondent affirmative form—as I discussed in (2) (repeated here as 21)—and the



occurrence of the negative marker is optional from the propositional point of view.

- (21) a. Rimarrò alla festa finché arriva Gianni  
 stay.1<sup>st</sup>sing.fut to-the party as long as arrives Gianni  
 ‘I will stay at the party until Gianni arrives’  
 b. Rimarrò alla festa finché *non* arriva Gianni  
 stay.1<sup>st</sup>sing.fut to the party as long as *neg* arrives Gianni  
 ‘I will stay at the party until Gianni arrives’

Crucially, Snegs depart from this pattern because they are strictly related to the negative marker *non*. In fact, there is not an affirmative correspondent form for Snegs displaying all the pragmatic, syntactic and prosodic features usually associated with them:

- (22) a. E *non* mi è scesa dal treno Maria?!  
 and neg Cl.to me is got off-the train Maria  
 ‘Maria got off the train!’  
 b. \*E mi è scesa dal treno Maria?!  
 and Cl.to me is got off-the train Maria

Snegs, therefore, constitute a paradox: the negative marker *non* does not invert the polarity of the sentence but, at the same time, its absence leads to the exclusion of the Sneg reading.

In summarizing, so far, I showed three unrelated facts that do not allow an immediate and intuitive explanation: the asymmetry in licensing topicalized and focalized elements (section I); the ungrammaticality of polarity-sensitive elements (section II); the obligatory nature of the negative marker *non* (section III). The aim of this book is to give an analysis of Snegs from which all those properties, and many others, are derived in a unitary way.

In order to do so<sup>6</sup>, I will propose to change a basic assumption on the syntactic status of the negative marker *non*. I will propose that the head *non*, generally assumed to be merged in TP area, can also be externally merged in the CP-domain. Such a syntactic configuration does not allow negation interacting with the predicative core of the sentence, recreating a similar situation to (16b) in which the scope of negation is blocked by a barrier (or

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<sup>6</sup> The following discussion can only be brief and incomplete because of its introductory nature. See Chapter 5 for a more detailed analysis.

a phase). I will show that this specific change in syntactic theory will correctly predict both the obligatory and expletive nature of negation and its impossible co-occurrence with polarity-sensitive elements in Snegs.

As a consequence of this syntactic hypothesis, I will also argue that Snegs display the whole TP in the focalized position, not allowing other focalized elements. From this fact follows the asymmetry between the topicalized and focalized phrases (as seen above).

Even though my proposal pertains to the syntax domain, it can also be used to shed light on the on-line processing of Snegs. In fact, I will suggest that the introduction of negation in the CP domain is the cause of its affirmative polarity. Such a syntactic representation raises a clear-cut prediction on the elaboration of Snegs: they reproduce the processing of affirmative clauses rather than that of negative clauses regardless of the occurrence of the negative marker *non*.

To investigate this idea, I built a psycho-linguistic experiment using the eye-tracker methodology in a visual-world paradigm. The selection of the eye-tracker is related to its very high temporal accuracy, which is essential in the study of negative sentences. In fact, it is traditionally assumed that negative sentences require two mental representations, temporally subsequent, to be elaborated. Consider, for example, the negative sentence “*The window is not open*”. According to this, a subject first would elaborate the mental representation of the window open (contrafactual states of affairs) and then, in a successive moment, the mental representation of the closed window (the negative meaning of the sentence). These two steps are not required for affirmative sentences that need just one mental representation equivalent to the meaning of the sentence. My prediction was that, like affirmative clauses, Snegs require only one mental representation. I consequently examined Snegs in comparison to affirmative and negative sentences.

Thirty-four subjects participated in the experiment, during which they were seated in a quiet room in front of a computer screen. A narrative voice told them a short real-life story (e.g., *Laura invited some friends to her home. When they arrived, she showed her domestic animal to them*) while 4 pictures were projected on the screen: two related to the story they were listening to (e.g., a *dog* and a *snake*), and two which were not (e.g., a *backpack* and an *air-conditioner*). One of the two related pictures represented an object highly expected in the story (e.g., the *dog*) because of its prototypic value compared to the described situation, and one highly unexpected (e.g. the *snake*), because of its non-prototypic nature. Each story ended with a target sentence, which might be affirmative (e.g., *La ragazza*

*ha mostrato un serpent*, translated as ‘*the girl showed a snake*’), negative (e.g., *La ragazza non ha mostrato un serpente*, translated as ‘*The girl did not show a snake*’) or Sneg (e.g., *La ragazza non ha mostrato un serpente?!* translated as ‘*The girl showed a snake!?*’). Throughout the whole experiment I recorded the participants’ eye movements.

Just a small road map. I will start this book with a general discussion on the syntax of standard and expletive negation (Ch. 1). I will then introduce the case of Surprise Negation Sentences from a descriptive point of view (Ch. 2). Since Snegs share some semantic, syntactic and prosodic features with other kinds of clauses, such as exclamatives and negative rhetorical questions, I will discuss their possible common membership (Ch. 3). This hypothesis will be rejected because Snegs display certain different and innovative elements that exclamatives and negative rhetorical questions do not. Pursuing the reasonable alternative that Snegs form a distinct class of EN clause, I will discuss the structure of the CP, from both cartographic and minimalist points of view, starting from their asymmetrical interaction with focalized and topicalized phrases (Ch. 4). After these preliminary sections, I will introduce the syntactic analysis of Snegs (Ch. 5) discussing the consequences and the advantages of such a proposal. I will also highlight that Italian displays other structures that share some elements with Snegs (like the focalization of TP) and, moreover, I will discuss some comparative observations further confirming my analysis. I will dedicate the last chapter (Ch. 6) to the experimental aspects of this book, showing that the syntactic configuration proposed for Snegs is also compatible with psycho-linguistic and cognitive data obtained by an eye-movements experiment.

# CHAPTER 1

## EXPLETIVE NEGATION: THE CASE STUDY OF SURPRISE NEGATION SENTENCES (SNEGS) IN ITALIAN

In this chapter I am going to discuss the distinction between standard and expletive negation (EN). Consider, for example, the following sentence:

- (1) Che cosa non ha fatto Gianni (!)  
    what      not has done Gianni  
    a. ‘What has not done Gianni’  
    b. ‘What has done Gianni!’

As the English translations show, the sentence in (1) can be interpreted as a case of standard negation (1a), when it is uttered with an assertive prosody, or as a case of expletive negation (1b), when it is uttered with an exclamative prosody.

The tension between these two readings is not only pragmatic, but involves the syntactic structure in which they occur. In fact, the constant feature among several different strategies to realize a negative sentence<sup>7</sup> is an extra negative morpheme (absent in the correspondent affirmative form) displaying its own syntactic physiognomy. I will focus on the implications of such a fact. More specifically, I will summarize the rich debate around the syntax of negative elements in order to obtain the essential knowledge to analyze Snegs. Since Italian negative sentences are the core subject of this study, I will consider them more carefully in this chapter.

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<sup>7</sup> I choose to neglect the constituent negation, because, as Klima (1964) points out, it follows a different computational procedure than the standard one. See De Clercq (2013) for a unifying approach to standard negation and the constituent one.

## 1.1 Standard Negation: the syntactic structure

Languages display different strategies to express standard negation. This range of variation is limited and has been used to investigate the structure of the Universal Grammar underlying linguistic negation (cfr. Zanuttini 2001). According to Payne (1985), there are 4 strategies<sup>8</sup>:

a) A negative marker carrying auxiliary features (like person, number, aspect and tense) is added to a non-finite participial form. This strategy emerges in some Siberian dialects like Evenki in (2):

(2) Bi  $\hat{o}$ - $\hat{o}$ -w                      dukuwun-ma duku-ra                      (Zanuttini 2001: 513)  
 I neg-PAST-1SG letter-OBJ write-PART  
 'I didn't write a letter'

b) A negative marker selecting a sentence as its argument. This kind of negative element resembles the main verbs inasmuch as it displays morpho-syntactic features. For example, in Tongan, a Polynesian language, the negative marker *'ikai* selects a CP like in (3):

(3) Na'e 'ikai [<sub>CP</sub> ke 'alu 'a Siale]                      (Zanuttini 2001: 513)  
 ASP neg [ASP go ABS Charlie]  
 'Charlie didn't go'

c) A negative marker added to a main verb as a prefix, infix or suffix. For example, Turkish negative marker *-me* (4) is adjoined to the verb similarly to other tense and number affixes;

(4) gör-ül-mc-yecek-ler                      (Bernini and Ramat 1996:9)  
 see-PASS-NEG-FUT-3PL  
 'They will not be seen'

d) A negative marker displaying a particle form, which can be sensitive to verbal modality (Hungarian *ne/nem*) or not (Russian *ne*), preceding or following the main verb. This strategy is the most widespread in the human languages. Negation can be realized as a single element, like the English *not* (5), or as two elements in a combination of a negative particle and an adverb,

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<sup>8</sup> Cfr. Kahrel and Van Den Berg (1994), Bernini and Ramat (1996) and Miestamo (2007) for a typological overview.

like the French *ne...pas* (6). In the latter case, the second element has a reinforcing function (see Jespersen 1917 and Dahl 1979).

(5) John does not like pizza (English)

(6) Je ne parle pas chinois (French)

The shared characteristic of the strategies in (a-d) is the addition of an extra negative particle reversing the polarity of the sentence. This is the reason why it is crucial to investigate its syntactic nature, because it affects the processing of the sentence in which it occurs. To pursue this goal, I will restrict my interest on the last of these typologies, since Italian falls under that category.

The first question arising on the syntactic nature of negation is whether negative markers have a proper syntactic characterization, or whether they are instances of some general categories, such as adverbs or polarity elements (see Zanuttini 1991,1996 and Zeijlstra 2004 for a detailed discussion). With regard to this question, Kitagawa (1986) firstly hyposizes the existence of a negative head for Japanese negation. On the same line, Pollock (1989) suggested that the English negative marker *n't* and the French *ne* are expressions of a specific functional projection NegP (Kayne 1989b extends this idea for all Romance languages). The introduction of a specific phrase for negative markers has followed the split-Infl hypothesis proposed by Pollock (1989), Belletti (1990) and, for independent reason, by Moro (1988). Since this idea is central to the discussion on linguistic negation, I need to recall it briefly.

Pollock's work starts from the well-known observation that English finite clauses display two different syntactic positions for auxiliary verbs and main verbs respectively. This phenomenon becomes evident if we put them in relation to the English negative marker *not* and the VP-adverb *often*: the auxiliary verbs can precede them (7) whereas main ones cannot (8).

(7) a. John does *not* play football / \*John *not* does play football  
b. John is *often* late

(8) a. \*John plays *not* football / John does *not* play football  
b. \*John eats *often* pizza / John *often* eats pizza

To explain such asymmetry, it has been proposed that the auxiliary verb moves to the head of IP while the main verb realizes the head of VP; since IP is higher than VP in the structure, auxiliary verbs precede the main ones<sup>9</sup>, as well as negation and adverbs. Pollock proposes the same idea for French non-finite verb clauses. He notes that French non-finite auxiliary verbs could either stay *in situ* or move to I, whereas lexical ones can only stay inside VP. For example, the non-finite auxiliary verb *être* can follow the negative adverb *pas* (9a) or can precede it (9b); the main verb *sembler* can only follow negation (10a) and cannot precede it (10b)<sup>10</sup>.

- (9) a. Ne pas *être* heureux est une condition pour écrire des romans  
 Ne pas to be happy is a prerequisite to-write of the novel  
 ‘Not to be happy is a prerequisite to write novels’  
 b. N’*être* pas heureux est une condition pour écrire des romans
- (10) a. Ne pas *sembler* heureux est une condition pour écrire  
 Ne pas to seem happy is a prerequisite to-write  
 des romans  
 of the novel  
 ‘Not to seem happy is a prerequisite to write novels’  
 b. \*Ne *sembler* pas heureux est une condition pour écrire des romans

Surprisingly, if we add the French form for “often”, *souvent*, the main verb can occur before it, adding a new puzzling piece to the discussion:

- (11) *Paraître* souvent triste pendant son voyage de noce, c’est rare  
 to-look often sad during one’s honeymoon that is rare  
 ‘To often look sad during one’s honeymoon is rare’

In order to explain the asymmetry of main verb behavior with negation and with adverbs, Pollock suggests the presence of different functional projections between IP and VP. He splits the traditional Inflectional Phrase into a complex system composed by three different syntactic projections:

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<sup>9</sup> A possible alternative is the movement of the adverb. Edmonds (1978) excludes this hypothesis arguing that adverbs usually do not move (except when they raises in CP-field for interpretative reasons; see Chapter 4).

<sup>10</sup> All the sentences are taken from Zanuttini 2001: 515-517.

tense (TP), negation (NegP) and agreement (AgrP). According to Pollock, TP dominates NegP and AgrP<sup>11</sup>:

(12) [TP [NegP [AgrP [VP ]]]]

To explain the French pattern, he proposes that both the negative elements *ne* and *pas* are generated in NegP: *pas* is [Spec, NegP] and *ne* is the Neg<sup>0</sup>. He argues that the auxiliary verbs move to the head of TP<sup>12</sup>, as in English, whereas the main verb can only move to the head of AgrP, therefore following the negative marker and preceding the adverb<sup>13</sup>:

(13) [TP *ne*<sub>k</sub>-Aux [NegP *pas* [Neg<sup>0</sup> t<sub>k</sub> [AgrP verb<sub>i</sub> [VP souvent [VP t<sub>i</sub>]]]]]]

The configuration in (12) takes into account the linear order of finite clauses in English as well as non-finite clauses in French. English auxiliary verbs move to the head of TP and, therefore, precede both negation and the adverb; instead, the main verb is at the head of VP and, consequently, follows them:

(14) [TP Aux [NegP n't [AgrP [VP often [VP Verb ]]]]]

Pollock (1989) introduces valid arguments in favor of the hypothesis that negation has a specific syntactic projection in the split-IP domain. This view has become the standard theory in generative grammar (among others, see Chomsky 1989, 1991; Zanuttini 1991, 1997, 2001; Haegeman 1995; Potsdam 1997).

Starting from Pollock's works, many scientists propose different hypotheses in order to comprehend the complex distribution of negative elements. For example, Poletto (2008) expands the edge of NegP from an unitary projection to a complex set of sub-projections (this operation is like the one seen above for IP). She wants to compress the variation of the negative markers in Romance languages in a unique syntactic projection. Each sub-projection carries a peculiar semantic feature selecting a coherent negative

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<sup>11</sup> Belletti (1990) proposes a contrary order of the functional projections, i.e. [AgrP [NegP [TP [VP ]]]]. Ouhalla (1991) tries to take into account both the Pollock and Belletti's hypotheses arguing for a parametric choice.

<sup>12</sup> The head *ne* cliticizes onto the auxiliary verb and, therefore, it moves with it.

<sup>13</sup> Both *after* and *souvent* are VP-adverbs and they are interpreted as adjoined to VP (see Zanuttini 2001).



element. Such a feature is related to the etymological origin of the negative element. The final result is a NegP-field with five different positions:

$$[\text{NegP} [\text{focus/operator} [\text{ScalarP} [\text{MinQ} [\text{QP} [\text{Existential IP}]]]]]$$

A contrary view is found in Laka (1990)<sup>14</sup>. Laka (1990) proposes that negation is not an independent syntactic category but rather a realization of a specific value of an abstract projection, the  $\Sigma$  Phrase, which can host different operators. Compare, for example, some English sentences displaying negative and emphatic structures:

- (15) a. Mary didn't leave (negative clause)  
       b. Mary did leave<sup>15</sup> (emphatic clause)  
       c. \*Mary did not leave

English displays do-support both in negative (15a) and affirmative (15b) cases. In order to take into account (15b), Chomsky (1957) proposed that an affirmative head projects an affirmative phrase requiring the do-support element. Unfortunately, this does not predict the impossible co-occurrence of two structures requiring the do-support element (like in 15c). In order to take into account their complementary distribution, Laka (1990) suggests that the  $\Sigma$  Phrase can instantiate, alternatively, a negative or an emphatic affirmative feature. Since there is only one head, only one element can be hosted. This is the reason why the negative clause cannot co-occur in emphatic structures. From this point of view, negation is no more a specific projection, but just a value that an operator can assume.

However, Laka's hypothesis shares with Pollock the idea that negation is generated in a projection sensitive to the sentential polarity. It can be unique, as in NegP, or shared, as in  $\Sigma$  Phrase. I leave aside the discussion on which of these two alternatives is more correct because it is beyond the aim of this work. The Snegs analysis is coherent with both these two hypotheses. For convenience, I follow Pollock's theory since it is the most widespread.

Let us assume that a negative marker is generated in NegP; we can ask where such a projection is merged in the syntactic structure. More specifically, NegP can cross-linguistically occupy the same position, or it can vary depending on the language. As we saw before, Pollock (1989)

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<sup>14</sup> Frascarelli (2000) discusses a similar proposal for Italian negative marker *non*; see §1.4 for a detailed analysis.

<sup>15</sup> I use the underlining to indicate the emphatic nature of the element.

suggests that NegP is located in an IP-split system, specifically between TP and AgrP (TP...NegP...AgrP...VP). Laka (1990) shows that negation in Basque is generated above TP and, more generally, she proposes that the  $\Sigma$  Phrase occurs in a position between CP and TP, selecting TP as its argument<sup>16</sup>. Again, Zanuttini (1997, 2001) emphasizes the different natures of the negative markers,<sup>17</sup> identifying different cross-linguistic positions for NegP.

For example, she argues that even if the French negative marker *ne* and the Italian *non* occur in a pre-verbal position, they show a syntactic different behavior due to the different locations occupied by NegP in those languages. According to Zanuttini (2001), French *ne* displays a pronominal clitic nature and it precedes both the finite (16a) and non-finite verbs (16b) as other pronominal clitics. The Italian *non*, instead, behaves as a pronominal clitic only in finite verb clauses (17a); in non-finite verb clauses *non* precedes the verb whereas the pronominal clitic follows it (17b).

- (16) a. Jean *ne* les mange pas (Zanuttini 2001:519)  
 Jean neg Cl.them eats neg  
 ‘Jean doesn’t eat them’  
 b. Jean voudrait *ne* pas les manger  
 Jean would-want neg neg them to.eat  
 ‘Jean would want not to-eat them’
- (17) a. Gianni *non* le mangia  
 Gianni not Cl.them eats  
 ‘Jean doesn’t eat them’  
 b. Gianni preferisce *non* mangiar-le  
 Gianni prefers not to-eat-Cl.them  
 ‘Gianni prefers not to eat them’

In order to explain (16)–(17), Zanuttini (1997) proposes that Italian NegP is higher than French NegP and, therefore, the two negative phrases behave differently<sup>18</sup>. More specifically, Italian *non* is the head of NegP located above TP (NegP...TP...VP) and French *ne* is a head of a lower NegP (TP...NegP...VP) which raises in the structure adjoining to a functional

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<sup>16</sup> She proposes that only the pre-verbal negative markers are generated in  $\Sigma$  Phrase while post-verbal adverbs like *pas* occur in an independent phrase lower in the structure. From this point of view, negation should occupy two different positions depending on its pre-verbal or post-verbal nature.

<sup>17</sup> See next section for a more detailed discussion.

<sup>18</sup> For a similar hypothesis see Haegeman (1995).

projection (often V<sup>o</sup>) in virtue of its clitic nature. Such structural difference is the reason why these negatives markers exhibit different syntactic behavior.

Following this kind of reasoning, Zanuttini (1997) discusses four different positions for NegP in Romance languages<sup>19</sup>:

a) A negative marker in a pre-verbal position that can deny a sentence by itself. We can find such a negation in Italian *non*, Spanish *no*, Portuguese *nao*, Catalan *no*, etc.

- (18) a. Gianni *non* ha telefonato a sua madre (Zanuttini 1997:3)  
 b. Juan *no* ha llamado a su madre  
 c. El Joan *no* a trucat a sa mare  
 d. Joao *nao* ligou para sua mae  
 'John hasn't called his mother'

b–c) A negative marker in a post-verbal position which precedes the past participle. This case is split in two sub-cases in relation to their linear order with some “low adverbs” (see Cinque 1995, 1999<sup>20</sup>):

i) a negative marker that follows adverbs such as *already* and *no more*. This negative marker occurs in some northern Italian and southeastern French languages as Piedmontese *nen*, Occitane *pas*, etc.

- (19) a. A l'avia (\**nen*) gia *nen* vulu 'ntlura (Zanuttini 1997:70)  
 s.cl. s.cl'had neg already neg wanted then  
 'Already at that time he had not wanted to.'

ii) A negative marker that precedes adverbs such as *already* and *no more*. Piedmontese displays this kind of negation as well:

- (20) A l'avia *pa* gia (\**pa*) vulu 'ntlura (Zanuttini 1997:70)  
 s.cl s.cl'had neg already neg wanted then  
 'Already at that time he had not wanted to.'

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<sup>19</sup> It has been attempted to reconstruct the original Indo-European form of standard negation. According to Fortson (2004), the original form was *nê* (or *mê*) and it usually occurs in a pre-verbal position.

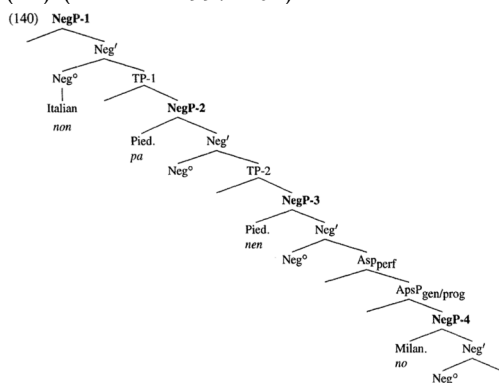
<sup>20</sup> Cinque proposes that the structural order of the adverbs between IP and VP is cross-linguistically fixed. The sequence is: *already* > *no more* > *always* > *completely* > *all* > *well*. See Chapter 4.

d) A negative marker in a post verbal position which follows the past participle. This is the lowest position of a negative marker. Consider the Milanese *no*, a northern Italian dialect:

- (21) a. El l'ha scrivuu no (Zanuttini 1997: 88)  
 s.cl s.Cl'has written neg  
 'He hasn't written'  
 b. \*El l'ha no scrivuu  
 s.cl s.Cl'has neg written

In summary, the four typologies of negative markers represent four different NegPs located in as many places in the sentential structure. Each language using a negative marker to deny a sentence adopts, at least, one of these strategies. According to Zanuttini, I progressively number the four NegPs starting from the highest, NegP1, to the lowest, NegP4:

- (22) (Zanuttini 1997: 101)



I follow Zanuttini (1997) in considering the four different locations that a NegP can display in a specific language<sup>21</sup>.

To summarize, we saw that a negative marker cannot be assimilated to other syntactic categories, such as adverbs, since it exhibits unique and specific behavior (Pollock 1989). From this fact, it has been proposed that there is a

<sup>21</sup> As we saw before, Poletto (2008) proposes the existence of a “bigger” projection that absorbs every kind of negation. See also Moscati (2010), and the references therein, for an overview on the cross-linguistic realization of the NegP positions.

functional negative phrase, NegP, located in the IP-split field. Finally, according to Zanuttini (2001), we have individuated four possible positions for NegP depending on its location in the linear word order<sup>22</sup>. Focusing on NegP, we can now ask if a negative marker occupies a head position or a more specific one. The alternation between these two positions generates some interesting facts.

### 1.1.1 On the negation head status

Treating a negative marker as the realization of a specific projection is not sufficiently accurate to catch the heterogeneity of negative phenomena. This is the reason why, in the last thirty years, a lot of research has been carried out to define correctly a X-bar schema for NegP (above all, see Zeijlstra 2004 and Moscati 2010<sup>23</sup>). I will start with some proposals on the head status of the negative markers.

According to Kayne (1989b), the French *ne* is the head of NegP (as I already discussed). As a proof, he discusses some cases in which negation blocks the head-to-head movement. Consider, for example, the pronominal clitic climbing phenomenon. According to him, clitics are heads that can raise from the subordinate clause to the main clause, as in (23a). However, when the negative marker *ne* occurs between the clitic and its trace, as in (23b), the structure is ungrammatical:

- (23) a. Jean la<sub>i</sub> fait manger t<sub>i</sub> par/à Paul (Zanuttini 2001:524)  
         John it makes to-eat by/to Paul  
         ‘John makes Paul eat it’
- b. \*Jean l’<sub>a<sub>i</sub></sub> fait *ne* pas manger t<sub>i</sub> à l’enfant  
         John it has made neg neg to-eat to the-child  
         ‘John made the child not eat it’<sup>24</sup>

<sup>22</sup> I do not refer to those works treating negation as a criterial operation, leaving this task to Haegeman and Zanuttini (1991) and to Haegeman (1995).

<sup>23</sup> He suggests that the distribution of negation is parametric (Moscati 2010:8):

A) Negation is signalled by an overt adverbial in the specifier or a bound morpheme in the head of NegP.

B) Both the specifier and the head positions of NegP may be phonologically realized. I do not take a position on this proposal because it is beyond the aim of this book. However, in the next two sections I will present some elements in favour of it.

<sup>24</sup> As we saw, the adverb *pas* is usually considered as the specifier of NegP headed by *ne* [NegP pas [ne]]. See Kayne (1989b) and the discussion below.

This blocking effect rises from a violation of the head-movement constraint proposed by Travis (1984)<sup>25</sup> (or, as is considered today, from a relativized minimality violation<sup>26</sup>). More specifically, according to Kayne (1989b), in (24b) clitic climbing is impossible because *ne* blocks the antecedent governing relation between the clitic and its trace<sup>27</sup>. Since clitics are heads, Kayne proposes that the French *ne* is a head too.

An additional test for the head status of negative markers is in Zanuttini (1997). In Padoan, a northern Italian dialect, interrogative structures show that  $V^0$  moves to  $C^0$  in order to satisfy the polar criterion. Since Padoan usually displays pronominal clitics in the subject position, both in affirmative (24a) and in negative clauses (24b), in interrogatives verbs compulsorily precede pronominal clitics—at least in affirmative form (24c)—yielding ungrammaticality if such a movement does not take place (24d).

- (24) a. *El vien*” (Zanuttini 1997:40)  
 Cl.he comes  
 ‘He’s coming’  
 b. *No el vien*  
 neg Cl.he comes  
 ‘He isn’t coming’  
 c. *Vien-lo?*  
 comes-Cl.he  
 ‘Is he coming?’  
 d. \**El vien?*  
 Cl.he comes

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<sup>25</sup> The head movement constraint states that a head  $X^0$  can move into a head  $Y^0$  only if  $Y^0$  properly governs  $X^0$ .

<sup>26</sup> See Rizzi (2001).

<sup>27</sup> In RM’s view, negation blocks clitic climbing as the result of an intervention effect. Since clitic movement forms a head-chain crossing over negation, the resulting configuration [Clitic...Neg...Trace] is a violation of the RM assumptions. In fact, the minimal configuration required by the probe-trace chain in RM is given in (i)

- (i) Y is in a Minimal Configuration with X if there is no Z such that:  
 i. Z is of the same structural type as X, and  
 ii. Z intervenes between X and Y. (Rizzi 2001: 225)

In my example, the negative marker is Z and, therefore, Y and Z cannot stay in the required minimal configuration. See Rizzi (1990, 2001) for a detailed analysis. An example of RM’s application and negation is in Ouhalla (1990).