1 Introduction

Over the last 15 years the study of negation has occupied a central position in formal linguistics. Negation has proven to be one of the core topics in syntactic and semantic theories. It is interesting for many reasons: it is present in every language in the world; it exhibits a range of variation with respect to the way it can be expressed or interpreted; it interacts with many other phenomena in natural language; and finally, due to its central position in the functional domain, it sheds light on various syntactic and semantic mechanisms and the way these different grammatical components are connected.

This book focuses on four different phenomena that have dominated the study of negation over the last decade. In this work, I do not only describe and account for these four issues, but I also describe and account for their distributional correspondences, i.e. to what extent and why these four issues are related.

In this chapter, I first describe the four phenomena that are subject to study in this book. Then I describe the empirical domain and motivate its choice. Finally I provide an overview of the way this book is set up.

1.1 Four issues in the study of negation

In this book I address four issues in the syntax and semantics of negation that appear to be interrelated. Briefly these are the variation that languages exhibit with respect to (i) the syntactic expression of sentential negation; (ii) the interpretation of multiple negative expressions; (iii) the grammaticality of true negative imperatives; and (iv) the interpretation of clauses in which a universal quantifier subject precedes negation.

1.1.1 The syntactic expression of sentential negation

Most languages use a particular negative marker to express sentential negation. However, languages differ both synchronically and diachronically with respect to the number, the syntactic position and the syntactic status of these negative markers. Italian uses a preverbal negative marker to express sentential negation. Catalan has such a preverbal negative marker too, but it also allows an optional negative adverb. In Standard French such a combination of a preverbal negative marker and a negative adverb is obligatory. In West Flemish sentential negation is expressed by means of an obligatory negative adverb and an optional preverbal negative marker. Finally, a language like German finally expresses negation by means of a single negative adverb.

(1) a. Gianni *non* ha telefonato
    Gianni neg has called
    ‘Gianni didn’t call’
b. No serà (pas) facil
   Neg be.FUT.3SG neg easy
   ‘It won’t be easy’
Catalan

c. Jean ne mange pas
   Jean neg eats neg
   ‘Jean doesn’t eat’
French

d. Valère (en) klaapt nie
   Valère neg talks neg
   ‘Valère doesn’t talk’
West Flemish

e. Hans kommt nicht
   Hans comes neg
   ‘Hans doesn’t come’
German

Jespersen (1917) shows that this cross-linguistic variation is related to the fact that languages change diachronically with respect to the syntactic expression of negation. Old Dutch e.g. expressed negation by means of a single preverbal negative marker en/ne, Middle Dutch used two obligatorily present negative markers for the expression of negation: a preverbal negative marker en/ne and a negative adverb niet, similar to Standard French. In Modern Dutch a negative adverb niet expresses sentential negation by itself.

(2) a. Salig man ther niuweht uòr in gerède ungenèthero¹ Old Dutch
   Blessed man who neg walks in counsel impious.PL.GEN
   ‘Blessed the man who does not walk in the counsel of the impious’
Middle Dutch
b. En laettine mi spreke niet²
   Neg let.he me speak neg
   ‘If he doesn’t let me speak’

c. Jan loopt niet
   Jan walks neg
   ‘John doesn’t walk’

In this dissertation I address the following questions:

- What (syntactic) variation do languages exhibit synchronically and diachronically with respect to the expression of sentential negation?
- How can this (syntactic) variation be explained?

In order to answer these questions, I discuss the diachronic development of the expression of negation in Dutch in detail. In addition to this I describe the synchronic variation within Dutch dialects and the variation in a set of 25 other languages. In order to account for this variation, the syntactic status (head/specifier) of negative markers, as well as the possible positions within the clause are subject of research. I

¹ Wachtendonc Psalms: 1:1.
² Lanceloet: 20316.
address the question whether a particular negative functional projection NegP can host negative markers.

### 1.1.2 The interpretation of multiple negation

Another puzzle is constituted by the interpretation of clauses that seem to contain more than one negative element. In many languages (such as Italian) two negative elements do not cancel each other out, but yield one semantic negation only (3). This phenomenon is referred to as Negative Concord (NC). Only in a small number of languages, such as Standard Dutch, two negative elements cancel each other out (4).

(3) Gianni *non* ha telefonato a *nessuno*  
Gianni neg has called to n-body  
‘Gianni didn’t call anybody’

(4) Jan heeft *niet niemand* gebeld  
Jan has neg n-body called  
‘Jan didn’t call nobody’ = ‘Jan called somebody’

The class of NC languages is not homogenous, as not every combination of two negative elements can be assigned an NC interpretation. NC languages differ with respect to the possibility of having a negative subject followed by a negative marker in an NC reading. In Russian expressions such as (5) are acceptable, in Portuguese such a construction is ruled out (6). Languages that allow such constructions are called *Strict NC* languages, languages that do not are referred to as *Non-Strict NC* languages (cf. Giannakidou 1997, 2000).

(5) *Nичего не* работает  
N-thing neg works  
‘Nothing works’

(6) *Ни́кто не* приехал  
N-body neg came  
‘Nobody came’

Since two negations do not cancel each other out in NC languages, as might be expected from a logical point of view, Negative Concord forms a challenge to compositionality. This leads to the following questions in this thesis:

- What is the exact range of variation that languages exhibit with respect to the interpretation of multiple negative expressions?
- How can Negative Concord be explained?
First, I provide an overview of the range of variation with respect to NC in the entire empirical domain. Second, I investigate the exact meaning of negative elements in Strict NC, Non-Strict NC and Double Negation (DN) languages. Of particular interest is the question whether negative elements in NC languages are semantically negative or not. On the basis of various examples I argue that n-words should be considered to be semantically non-negative indefinites which are licensed by an abstract or overt negative operator.

**1.1.3 True negative imperatives**

The third phenomenon that is investigated in this book is the grammaticality of negative imperatives. Generally, imperatives can be negated as is shown in (7) for Polish.

(7)  
\begin{align*}
\text{a. } & \text{Pracuj!} \\
& \text{Work.IMP} \\
& \text{‘Work!’} \\
\text{b. } & \text{Nie pracuj!} \\
& \text{Neg.work.IMP} \\
& \text{‘Don’t work!’}
\end{align*}

However, in a small set of languages true negative imperatives are ill-formed. In order to express negative imperative mood, a surrogate construction is required, e.g. a subjunctive, as is the case in Spanish.

(8)  
\begin{align*}
\text{a. } & \text{!Lee!}^3 \\
& \text{Read.2SG.IMP} \\
& \text{‘Read’} \\
\text{b. } & \text{*!No lee!} \\
& \text{Neg read.2SG.IMP} \\
& \text{‘Don’t read’} \\
\text{c. } & \text{!No leas!} \\
& \text{Neg read.2SG.SUBJ} \\
& \text{‘Don’t read!’}
\end{align*}

In this book I address the following questions with respect to imperatives:

- What is the exact distribution of languages that ban true negative imperatives?
- How can this ban be explained?

First I investigate which languages and varieties in the empirical domain forbid the negative imperative construction. In order to account for this phenomenon, the

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syntactic properties of negative markers in these languages, in opposition to the syntactic properties of negative markers in languages that allow these constructions, will be examined.

1.1.4 Universal quantifier subjects preceding negation

The fourth topic in this study of negation is the interpretation of (marginally acceptable) constructions as in (9). In English, these constructions have been reported as ambiguous between a reading in which the universal quantifier subject (\(\forall\)-subject henceforward) scopes over the negation, and a reading in which negation outscopes the subject.

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\begin{align*}
(9) \quad \forall x \rightarrow \neg x: \text{`Nobody shows up'} \\
\rightarrow \forall x: \text{`Not everybody shows up'}
\end{align*}
\]

Other languages yield other interpretations of these constructions. In Standard Dutch, the only available reading is the one in which the subject has scope over negation, but Spanish e.g. has only a reading in which negation is higher than the \(\forall\)-subject. Hence, I address the following questions:

- What is the exact variation that languages exhibit with respect to the interpretation of constructions in which an \(\forall\)-subject precedes the negative marker?
- How can the occurrence of the inverse reading be explained?

In order to answer these questions I pay interest to the positions where the negation, the negative marker and the subject are base-generated, and to which position these elements can be (c)overly moved.

1.1.5 Correspondences between these phenomena

Negation has occupied a central position in many syntactic and semantic studies, and all these topics have been addressed and have been studied extensively. This study differs however from other studies in that it does not aim at providing isolated accounts for these phenomena, but it tries to explain these phenomena by examining their correspondences. It will turn out that these phenomena are uni-directionally correlated. For instance, every Non-Strict NC language bans true negative imperatives, or every language that expresses sentential negation by means of at least a preverbal negative marker is an NC language as well. Hence the following questions will be addressed in this book:
What is the exact correlation between the phenomena that have been presented in 1.1.1 – 1.1.4?

How can these correspondences be explained?

The fact that these phenomena are correlated forms a major key in their understanding. Especially since the correlations rule out many explanations that could have been formulated otherwise: the fact that NC is (uni-)directionally correlated to the presence of a preverbal negative marker (of which I show that it is syntactic head) leads us in the direction of an explanation of NC in terms of syntactic agreement rather than in the direction of a semantic account that is blind to the syntactic status of negative markers.

1.2 The empirical domain

In order to draw a typological generalisation a proper empirical domain is required. The empirical domain that forms the basis of this study is threefold. It consist of (i) a sample of diachronic Dutch data, (ii) a sample of data from 267 different Dutch dialects, and a sample of data from 25 other (non-arbitrarily chosen) languages. The rationale behind this threefold division is that language-internal and cross-linguistic variation are not a priori distinct. Roughly speaking, three different kinds of variation can be distinguished. First, phenomena in which languages differ cross-linguistically, but that are not (or hardly) subject to language-internal variation. V2 effects in Dutch main clauses are manifested in every Dutch variety, but other languages, such as English, lack such effects in all its varieties.

Second, the variation in sentence-final verbal clusters in Dutch is subject to a wide range of dialectal variation, but such variation is restricted to Dutch, but is not found in all languages.

A third kind of variation seems to be blind to the language-dialect distinction, a distinction that lacks firm ground in linguistic theory anyway. I show in this thesis that negation is such a phenomenon.

The diachronic development of the syntactic expression of sentential negation is reflected in its cross-linguistic distribution (each language is in a different phase of this development). Another example is NC. I show that there is a wide range of variation with respect to the interpretation of multiple negative expressions amongst Dutch dialects. Although the majority of Dutch dialects are DN varieties, a number of Dutch dialects (especially Flemish dialects) are NC varieties.

If negation is indeed a phenomenon that exhibits cross-linguistic and language-internal variation in a similar way, it suffices methodologically to draw generalisations on the basis of Dutch microvariation. The major requirement then is that afterwards it needs to be ‘checked’ whether the generalisations that have been drawn correspond to cross-linguistic variation. Hence, on the basis of a detailed study of one language and a small number of less-extensively studied other languages, a series of generalisations can be drawn that are typologically well grounded.
1.2.1 Diachronic variation

Part of the empirical domain consists of Dutch diachronic variation. This domain covers three periods of Dutch language history: Old Dutch (9th – 10th century), Middle Dutch (11th – 15th century) and 16th and 17th century Dutch. The data from these phases of Dutch stem from prose and poetry texts.

The data of Old Dutch come from the Wachtendonck Psalms, a translation of Vulgate Latin psalm texts of the 9th century. In order to collect data from Middle Dutch, I made extensive use of the CD-ROM Middle Dutch (Van Oostrom 1998), which consists of a large bundle of Middle Dutch texts (both fiction and non-fiction). The data from 16th and 17th century Dutch have been collected from a number of literary texts. Additionally, data from this period have also been taken from Van der Wouden (1994b).

A major problem with the collection of Dutch diachronic variation concerns the fact that not from every period much information is available. The Old Dutch material for example consists of only one text that has been translated from Latin rather literally.

A second problem is that not every example that I have been looking for has been found in the diachronic data. For example, the number of sentences with an V-subject preceding negation for example has been very few and it was not always clear how these sentences should be interpreted.

1.2.2 Dialectal variation: the SAND project

A second part of the empirical domain consists of the results of the SAND project (Syntactic Atlas of Dutch Dialects). In this project, carried out by researchers (including myself) from the universities of Amsterdam, Leyden, Antwerp and Ghent, and the Meertens Institute, 267 different Dutch dialects (157 in the Netherlands and 110 in Belgium) have been investigated by means of oral interviews.

The informants were mostly between 55 and 70 years. In the ideal situation the informants and their parents had lived in the same place. They spoke the dialect at least in one public domain and they belonged to the lower middle class. Before the ‘real’ interview, the fieldworker interviewed one of the informants and gave this informant a brief training in interview techniques. Afterwards, this informant interviewed a second informant, so that the real interview took place without too much interference by the fieldworker.4

As negation is one of the aspects that the atlas project is focusing on, questions concerning judgements of speakers about most phenomena dealt with in this thesis, have been part of the questionnaire that has been used for the fieldwork. Hence the results of the SAND project provide a proper overview of the variation in negation that contemporary Dutch exhibits.

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4 Cf. also Van Craenenbroeck (2004), Comips & Jongenburger (2001a, 2001b) and Comips & Poletto (t.a.).
1.2.3 Typological checking

After analysing diachronic and dialectal variation in Dutch, two problems remained unsolved. First, some phenomena were hardly available in Dutch microvariation. Only Old Dutch, of which just one text has been preserved, expressed sentential negation by means of a single preverbal negative marker, by far insufficient to draw any generalisations or to build a theory on. Second, it should still be investigated whether other languages do not contradict the generalisations that have been drawn on the basis of Dutch microvariation.

Hence a survey amongst a set of other languages was required. I have created a sample consisting of data from 25 other languages. This sample consists of languages that vary with respect to all phenomena under research and therefore this sample serves as a proper additional basis to draw generalisations on. The results of the typological research confirmed the generalisations made about Dutch, which I thus conclude to be valid.

1.3 Outline of the book

This book is set up as follows: in chapter 2, I describe some of the theoretical backgrounds. Since this dissertation provides syntactic and semantic analyses and analyses about the syntax-semantics interface, I briefly introduce these fields of linguistic theory. This chapter does not serve as a complete introduction of these fields, as I only meant to present the main ingredients of the theories I use in the rest of this book.

In chapter 3, I prepare the ground for the rest of this study by describing all phenomena that I have investigated in detail. I explain the notions of negative elements, n-words, Negative Polarity Items (NPI’s) and sentential negation and I provide working definitions for these notions when necessary. Furthermore, I discuss in detail the four phenomena that I briefly introduced in 1.1.

Chapter 4 contains the results of research of Dutch micro-variation with respect to negation. I discuss the diachronic data first and afterwards the results of dialectal research. This results in a number of generalisations with respect to the four investigated phenomena.

In chapter 5, I present the results of the typological checking procedure. I present data from 25 languages concerning the four issues under investigation and I conclude this chapter by presenting a series of generalisations about these issues. Most of these generalisations confirm the generalisations made about Dutch; others provide additional information about the correlation between the four phenomena that have been subject to research.
Chapter 6 is about the syntax of negative markers. I show that preverbal negative markers are syntactic heads (X°) and negative adverbs are XP's. Moreover, I demonstrate that preverbal negative markers always constitute a functional projection NegP whereas negative adverbs may occupy a position within such a projection.

I also argue in this chapter that languages vary cross-linguistically with respect to the presence of such a negative projection. I conclude that some languages with a negative adverb lack NegP and locate their negative marker in a vP adjunct position.

Finally, I present accounts for both the ban on true negative imperatives (in terms of blocking head movement) and for the inverse readings in constructions in which an ∀-subject precedes a negative marker (by assuming that the negative operator is base-generated in different positions cross-linguistically).

In chapter 7, I address the semantics of n-words in NC languages, and I discuss different proposals that have been presented in the last 15 years. I argue that proposals that take n-words to be negative quantifiers (Zanuttini 1991, Haegeman & Zanuttini 1996, De Swart & Sag 2002) face problems as well as proposals that consider n-words to be NPI's (Ladusaw 1992, Giannakidou 1997, 2000). I also discuss some proposals that argue that n-words are ambiguous between NPI's and negative quantifiers and show that these analyses do not hold either. Finally, I show that Ladusaw's original position, that NC is a form of syntactic agreement and that n-words are indefinites that are syntactically marked for negation, forms a profound basis to build a theory of NC on.

In chapter 8, I present my theory of NC, arguing that languages differ with respect to the way they express negation: languages exhibit either semantic negation (in which every negative is semantically marked for negation in its lexical representation), or syntactic negation (in which negative elements are syntactically marked for negation i.e. they mark the presence of a negative operator that needs to stand in an Agree relation with them). The distinction between Strict and Non-Strict NC is the result of the syntactic or semantic negativity of the negative marker.

In the same chapter, I argue that my analysis does not suffer from the problems that other approaches face and I show that the uni-directional generalisation between NC and the syntactic status of the negative marker falls out immediately.

Finally I indicate how this theory of NC is connected to the diachronic development of negation by assuming a simple input-output learning mechanism of negation.

Chapter 9 contains the conclusion in which I demonstrate how the generalisations that have been drawn in chapter 4 and 5 are the result of the syntactic and semantic analyses that have been presented in the chapters 6-8.