Sentential Negation and
Negative Concord

Sentential Negation and
Negative Concord

ACADEMISCH PROEFSCHRIFT

ter verkrijging van de graad van doctor aan de Universiteit van Amsterdam
op gezag van de Rector Magnificus Prof. Mr P.F. van der Heijden
ten overstaan van een door het College voor Promoties ingestelde commissie,
in het openbaar te verdedigen in de Aula der Universiteit

op

woensdag 15 december 2004, te 10:00 uur

door

HEDZER HUGO ZEIJLSTRA

geboren te Rotterdam

Promotiecommissie:

Promotores: Prof. Dr H.J. Bennis
Prof. Dr J.A.G. Groenendijk

Copromotor: Dr J.B. den Besten

Leden: Dr L.C.J. Barbiers (Meertens Instituut, Amsterdam)
Dr P.J.E. Dekker
Prof. Dr A.C.J. Hulk
Prof. Dr A. von Stechow (Eberhard Karls Universität Tübingen)
Prof. Dr F.P. Weerman

Faculteit der Geesteswetenschappen

Voor Petra

Table of Contents

Acknowledgements

During the last years, when I was a PhD student at the University of Amsterdam, I received many help from various people around me. Without their kind help I would not have been able to write this book, and I am very happy to express my gratitude towards them in this section.

First, I would like to express my deepest gratitude towards my supervisors: Hans Bennis, Hans den Besten and Jeroen Groenendijk. Hans Bennis taught me how to reason and argument scientifically. I very much enjoyed all our discussions. Hans den Besten has always been available to help me out with all different kinds of questions. His encyclopaedic knowledge is admirable. Jeroen Groenendijk was always there to answer any semantic question.

In this respect, I would also like to thank the following people: Aafke Hulk, who was my former *promotor*, for always standing behind me; Sjef Barbiers, who coordinated the Syntactic Atlas of Dutch Dialects (SAND) project, for the many conversations and his patience with my way of doing fieldwork; Paul Dekker for bridging the gap between the linguists and the philosophers in Amsterdam and for introducing me in the Amsterdam semantics community; Fred Weerman for bringing new life into the Dutch linguistics group and for willing to read my papers, abstracts, etc. and many fruitful discussions; Arnim von Stechow, finally, for being a great inspirer and having invited me to come to work in Tübingen. I am glad that you were all willing to join the reading committee.

I was very lucky to be able to participate in several linguistic communities, which all proved to be very stimulating surroundings. The Dutch linguistics group grew rapidly over the past few years and formed a nice environment to work in. I enjoyed the many discussions during lunches, varying from the latest minimalist papers to the weird developments in Dutch politics. Maren Pannemann and Suzanne Aalberse, you were great roommates.

In my first year as a PhD student I was part of the Holland Institute for generative Linguistics (HIL). This institute was a profound place to do research and up till today I still can't understand what the bureaucrats had in mind when they decided to split up this institute. I would like to thank the (former) HIL members for their accepting me to their graduate program.

The Amsterdam Center for Language and Communication (ACLC) is more and more turning into a nice platform for many different ideas about language. The Friday afternoon *borrels* were very pleasant and often let to interesting exchanges of ideas. I have good memories of the weekly AiO-lunches.

would like to thank Jan Willem Romeyn for sincere friendship, for ongoing discussions, for reading parts of this thesis and for being my neighbour again.

I would like to thank my parents, Anneke and Jan Hein, for having supported me over the last 29 years and having made things possible for me.

Finally, I want to thank Petra for all her love, patience and support. I realise sometimes you felt you had to share me with NegP. I am glad that now we are able to spend more time together. With all my love, this book is dedicated to you.

Amsterdam/Tübingen, oktober 2004

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   Italian
        Gianni neg has called
        'Gianni didn't call'

    b.   *No* serà (*pas*) facil   Catalan
         Neg be.FUT.3SG neg easy
         'It won't be easy'
    c.   Jean *ne* mange *pas*   French
         Jean neg eats neg
         'Jean doesn't eat'
    d.   Valère (*en*) klaapt *nie*   West Flemish
         Valère neg talks neg
         'Valère doesn't talk'
    e.   Hans kommt *nicht*   German
         Hans comes neg
         'Hans doesn't come'

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 *niuueht* uôr in gerêde ungenêthero[1]   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'
    b.   *En* laettine mi spreke *niet*[2]   Middle Dutch
         Neg let.he me speak neg
         'If he does'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] Wachtendonck 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*   Italian
       Gianni neg has called to n-body
       'Gianni didn't call anybody'

(4)   Jan heeft *niet niemand* gebeld   Dutch
       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)   *Nichego ne* rabotaet   Russian
       N-thing neg works   (Strict NC)
       'Nothing works'

(6)   *Ninguém* (*não*) veio   Portuguese
       N-body neg came   (Non-Strict NC)
       '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)   a.   Pracuj!   Polish
              Work.IMP
              'Work!'
       b.   *Nie* pracuj!
              Neg.work.IMP
              'Don't work!'

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)   a.   ¡Lee!³   Spanish
              Read.2SG.IMP
              'Read'
       b.   *¡*No* lee!
              Neg read.2SG.IMP
              'Don't read'
       c.   ¡*No* leas!
              Neg read.2SG.SUBJ
              'Don't read!'

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

---

³ Cf. Tomic (1999).

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.

(9) $^?$Everybody does*n't* show up
         $\forall > \neg$: 'Nobody shows up'
         $\neg > \forall$: 'Not everybody shows up'

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)overtly 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 $\forall$-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.

---

[4] Cf. also Van Craenenbroeck (2004), Cornips & Jongenburger (2001a, 2001b) and Cornips & 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 *v*P 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 hat 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.

2   Theoretical backgrounds

In this chapter I will briefly sketch the main theoretical assumptions and frameworks that underlie the analyses of single and multiple negation in this book. This chapter will cover three different fields in linguistic theory: minimalist syntax, truth-conditional semantics and the syntax-semantics interface. The first section will cover the minimalist program; section 2.2 will provide an overview of truth-conditional semantics and those approaches of semantic theory that are relevant for this study, and section 2.3 will capture the main notions belonging to the syntax-semantics interface.

The main purpose of this chapter is to describe the theoretical tools that I need for my analysis of negation. Those include both a syntactic apparatus and semantic machinery in order to describe and explain correct grammatical structures and the correct interpretations. The first two sections will have a descriptive nature: I will restrict myself to describing the syntactic and semantic notions that are necessary for the analyses. It will turn out that the domains of syntactic and semantic theories overlap with respect to certain phenomena, and I discuss where syntax and semantics meet. As a result of this overlap, the third section does not only consist of a descriptive discussion of current theories, but also contains critical comparison between the syntactic and semantic strategies.

2.1   *The Minimalist Program*

In this section I will provide a brief overview of the minimalist syntactic theory that has been developed in the last decade. In subsection 2.1.1 I will sketch the model of grammar that forms the basis of the Minimalist Program. In subsection 2.1.2 I will discuss the notions of interpretable and uninterpretable features and the mechanism of feature checking. Subsection 2.1.3 will cover the three basic syntactic operations: *Merge*, *Move* and *Agree*. Finally, in subsection 2.1.4 I will explain Chomsky's (2001) ideas on locality and phase theory.

2.1.1   A minimalist model of grammar

The Minimalist Program (Chomsky 1992, 1995, 1998, 2000, 2001) is an elaboration of the Principle and Parameters framework, designed such that it requires only a minimum of theoretical apparatus. The Principle and Parameters framework states that the human language faculty consists of a set of universal principles and a set of parameters, which constitute linguistic variation. In the Minimalist Program, a research program guided by Ockam's methodological principles, rather than a fixed linguistic theory, language is thought of as a (nearly) optimal linking between linguistic form and linguistic meaning.

Linguistic expressions are generated in the linguistic component (the Language Faculty F_L) of the mind that has interfaces with the articulatory-perceptual (AP)

system and LF the Conceptual-Intentional (CI) system. Form and meaning are represented at these two interfaces, which are the only levels of representation within the theory. PF (phonological form) is the interface between F_L and the AP system and LF (Logical Form) is the interface between F_L and the CI system.

(1)   *The linguistic component and its interfaces with other components*
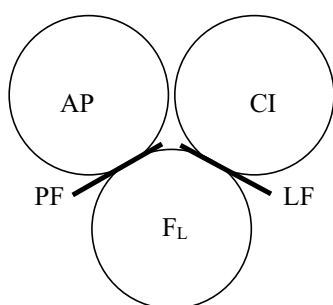
Each linguistic expression can be seen as a tuple $<\pi, \lambda>$, where π stands for the phonological form (the sound or gestures) of a linguistic expression and λ for the logical form of the expression (the meaning). A linguistic expression is a single syntactic object that is derived during the computation of the expression.

The lexicon consists of lexical entries, each containing lexical items (LI's). LI's are thought of as bundles of features. Chomsky (1995) distinguishes three different kinds of features: *phonological features*, *semantic features* and *formal features*. The set of phonological features of a certain LI encodes all the information that is needed at PF to enter the AP system. An example of a phonological feature is 'ending on a /d/' (__/d/#). Semantic features are those features that can be interpreted at LF, e.g. [+animate]. Formal features are categorical features like [+V] or so-called φ features on verbs that contain the information about number, gender or case. These features encode information for the syntactic component. Formal features are either interpretable [iFF] or uninterpretable [uFF]. Interpretable means legible at LF, i.e. containing semantic contents; uninterpretable features cannot be interpreted at LF or PF. The fact that these features are not legible at the interfaces violates the principle of *Full Interpretation* (Chomsky 1995) that says that the syntactic objects at the interfaces should be fully interpretable and therefore may not contain any uninterpretable features. Hence uninterpretable features need to be deleted during the derivation, to prevent the sentence from crashing at the interfaces (see 2.1.2 on feature checking and 2.1.3 on Agree).

A consequence of the assertion that PF and LF are the only available levels of representation is that syntactic principles can only apply on these levels. Due to the fact that the only two levels of linguistic representation are interfaces, principles can only operate on the interface between syntax and phonology or syntax and semantics. There is no pure syntactic level as previous theories of grammar postulated. This

reduces the number of purely syntactic principles (in the ideal situation) to 0. As a result of this, parameters can no longer be regarded as part of the core of (pure) syntax. Because the interfaces interact with other components (namely the AP and CI system), conditions on the interface cannot be thought of as subject to cross-linguistic (i.e. parametric) variation. Without any other level of representation, the only remaining locus for parametric variation is the lexicon. Therefore cross-linguistic variation (as well as language-internal variation) is the result of lexical variation: the formal properties of lexical items encode all necessary information for the syntactic derivation, and differences with respect to these formal properties lead to linguistic variation.

(2)   *Model of Grammar* (*Chomksy 1995*)

```
┌─────────────────┐
│ Lexicon         │
└─────────────────┘
         │
┌─────────────────┐
│ Numeration      │
└─────────────────┘
         │
┌─────────────────┐          ┌─────────────────┐
│ Spell-Out       │ ·······> │ Phonological    │
│                 │          │ Form (PF)       │
└─────────────────┘          └─────────────────┘
         │
┌─────────────────┐
│ Logical Form    │
│ (LF)            │
└─────────────────┘
```
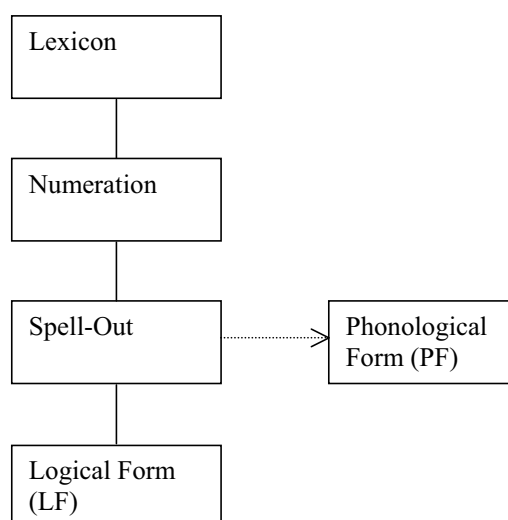
The figure in (2) shows that a set of lexical items enter a numeration N, which is a set of pairs $<LI, i>$, whereby LI is a lexical item and i the number of its occurrences in N. Every time a lexical item from N enters the derivation of the expression $<\pi, \lambda>$, i is reduced by 1 until every index of every lexical item is 0. If not, the derivation crashes. The derivation can be seen as a mapping from N onto the set of linguistic expressions $<\pi, \lambda>$.

At a certain point during the derivation, the phonological features are separated from the formal and semantic features. This moment is called Spell-Out. At this stage of the derivation, the phonological features are mapped onto PF, whereas the formal and semantic features follow their way towards LF. After Spell-Out, syntactic operations still take place, both between Spell-Out and LF and between Spell-Out and PF. However, operations between Spell-Out and PF do not influence LF, and operations between Spell-Out and LF do not influence PF.

2.1.2   Feature checking and functional projections

As has been shown in the previous subsection, the role of the derivation is to create syntactic objects (sentences) that do not crash at the interfaces. Therefore the derivation needs to delete all uninterpretable features. Uninterpretable formal features can be deleted by means of feature checking, a mechanism that allows a category to check its uninterpretable feature against an interpretable feature of the same category.
Hence categories sharing the same formal features establish syntactic relationships. Chomsky (1995) argues that feature checking takes place in specifier-head configuration: interpretable features in a spec position can check uninterpretable features in a head position and vice versa[5].
Hence the distinction between *heads* (syntactic elements that project themselves) and *specifiers* (modifiers of the head that remain under the projection of the head) is crucial for these relationships. Checking theory requires that in every checking relation both a syntactic head and a specifier are involved. As a consequence the number of syntactic categories should be expanded by a number of functional categories in which feature checking can take place. The fact that for every checking relation a syntactic head is involved links the availability of any uninterpretable feature [uF] to the availability of a syntactic category F. For every uninterpretable feature [uF] there is a functional category F and checking takes place in FP under spec head configuration[6].
An example of a functional projection is DP, in which the head is occupied by an uninterpretable [uDET] feature that establishes a checking relation with an element carrying an interpretable [iDET] in Spec,DP. Thus the deletion of the uninterpretable [uDET] feature in D° can take place. Before discussing the meachism of feature checking in detail, I will first discuss the possible syntactic operations during the derivation.

2.1.3   Syntactic operations

Three different syntactic operations play a role in syntax: *Merge*, *Agree* and *Move*. Since *Move* can be described in terms of *Merge*, this leaves two independent operations left to establish syntactic relationships.

Merge is the operation that takes two elements from the numeration N and turns them into one constituent that carries the same label as that of the dominating item. The notion of labeling replaces the previous notion of X-Bar structure.

---

[5] Epstein (1995) and Zwart 2004 argue that the relation Spec-head does not reflect a mathematical relation in the structure and therefore propose to replace spec-head agreement by the notion of sisterhood (which contrary to the spec-head configuration can be captured in mathematical terms).
[6] Note that this does not a priori exclude the availability of the category F if there is no uninterpretable feature [F]. Morphological words carrying an interpretable [F] feature could be base-generated in an F° position too.

The difference between labeling after Merge and X-Bar structure is that X Bar structure requires a tripartite structure that consists of a head, a complement and a (possibly empty) specifier. Merge generates bipartite structures that either consist of a head and a complement or of a specifier/adjunct and a head. Labeling theory only assigns the label (i.e. the syntactic category) of the dominant category (α/β) to the complex $\{\alpha, \beta\}$.[7] The combination of a transitive verb V and an object D for example yields an (intransitive) verb, so the label of the terminal node V is also the label of the branching node $\{V, D\}$. Note that these structures, referred to by Chomsky (1995) as Bare Phrase Structures (as opposed to X-Bar structures), lack prefabricated maximal projections. The notion of maximal projection is reduced to the highest instance of a syntactic category X. Note that the only operation that generates structure is Merge, so if there is no specifier available, the merge of a complement β with a head α will be the highest instance of α, and α can be merged with a new head. The operation Merge is defined as in (3):

(3)   *Merge*: $K = \{_{\alpha/\beta} \{\alpha, \beta\}\}$

K is a newly-formed constituent that is labeled after its head which can be either α or β. Two options are available. Either K merges with a new head γ yielding a new constituent L_1 labeled γ ((4)a) or it is merged with an LI δ that is not a head, yielding L_2 with label α where δ is called a specifier ((4)b). This latter constituent can be merged in its turn with a head (yielding L_3) ((4)c), similar to the case of ((4)a) or with a non-head ε ((4)c). In the latter case there is more than one specifier (δ and ε), and ε is called an adjunct of α.

(4)   a. $L_1 = [_{\gamma}\ \gamma\ [_{\alpha}\ \alpha\ \beta]]$[8]
                $[_P\ \text{in}\ [_D\ \text{the sky}]]$
        b. $L_2 = [_{\alpha}\ \delta\ [_{\alpha}\ \alpha\ \beta]]$
                $[_P\ \text{high}\ [_P\ \text{in}\ [\text{the sky}]]]$
        c. $L_3 = [_{\alpha}\ \varepsilon\ [_{\alpha}\ \delta\ [_{\alpha}\ \alpha\ \beta]]]$
                $[_P\ \text{still}\ [_P\ \text{high}\ [_P\ \text{in}\ [\text{the sky}]]]]$

The second operation that may follow is *Move*. Move is an operation that is derived from Merge. Instead of merging two constituents from the numeration N, it is also possible to merge K with a subpart of K.

(5)   *Move*: $L = \{_{\alpha/\gamma} \{\alpha, K\}\}$, whereby $K = \{_{\gamma} \{\ldots\ \alpha\ \ldots\ \}\}$

Move is an operation that takes a few steps. Suppose that α is a term of some constituent K and for whatever reason α has to raise to a position to the left of K. In that case α will be copied into two identical constituents, and K merges with the copy of α yielding $L = \{_{\gamma}\ [\alpha,\ K(=[\ldots\ \alpha\ \ldots])]\}$. After this movement the second α is

---

[7] See Collins (2002) for a framework without any labelling.
[8] The choice for α as the label of the Merge of α and β is arbitrary. It could also be β, as long as every higher label of α is replaced by β too.

phonologically no longer visible. For the rest, the structure remains unaffected (Chomsky 1995: 250). This means that the so-called trace of α does not get deleted, but will only be marked for its phonological invisibility. This mechanism is commonly referred to as the *copy theory of movement*. One of its most famous applications is Wh-movement in which a Wh-element is fronted from its base-generated position.

(6)   [what [did you eat ~~what~~]]

In (6) there are two instances of *what*, but only one will be spelled out. The rule that specifies that the first Wh element will be spelled out in sentence-initial position (at least in English) is a condition on PF.

The third syntactic operation is Agree[9]. Agree is the operation that establishes a relation between two features of the same kind. If an LI consists of a feature that is uninterpretable, it needs to check this feature against a feature of the same kind. It is said that the category *probes* for a *goal*.

In the older versions of minimalism (Chomsky 1995) uninterpretable features were deleted after checking against an interpretable feature. However, the notion of interpretation is defined as a semantic or phonological notion: a feature that has semantic or phonological content is interpretable. Therefore syntax had to 'look ahead' for the semantics or phonology in order to allow feature checking or not, but a derivation is not supposed to have any 'contact' with the interface before reaching them.[10].

In order to solve this problem, Chomsky (1999) proposes a new system in terms of valuation. Some features, like [Def] or [Case], in the lexicon do not have any value (definite/indefinite, or nominative/accusative, etc.) yet. During the derivation these features can be valued by means of Agree. All (unvalued) features need to be valued: a derivation containing unvalued features will crash at the interfaces.

Valuation takes place by Agree when a properly valued (interpretable) feature is in specifier head (spec head) relation with an unvalued feature. A good example is subject verb agreement: the finite verb has φ features (such as person and number) that are semantically vacuous on the verb. The subject has the same kind of features, but these are meaningful for pronouns or DP's. The subject (being a DP) also has an unvalued [Case] feature that will be valued [Nom] by the Agree relation with the finite verb. So, Agree is a two-way relation between two lexical items that valuate

---

[9] For the texts on Agree, I thankfully made use of Kremers' (2003) explanation of this operation.

[10] Note that this forms a huge problem for the syntactic model: if the numeration is not allowed to be in a transparent relation with LF throughout the derivation, the question rises what triggers the numeration N in the first place. The set of selected elements should correspond to the meaning of the sentence, which is represented at LF. Chomsky (p.c.) argues that the numeration is open to ambiguity, e.g. 'the cat bites the dog' is derived from *the* (2*), *cat*, *bites* and *dog*, which could also yield the sentence 'the dog bites the cat.' Even if this were possible (which is doubtful as the lexical elements are said to enter the derivation with all the case features with them), it remains unclear why these lexical items have been triggered and others not. Hence, there should be some relation between the meaning of the sentence (at least the intended meaning) and LF.

(some of) each other's unvalued features. At LF, valued features without semantic content on the LI can be deleted.

(7) $[V_{fin}\ [_v\ \ \ SU\ ]]$
        $[Case_{unv}]\ [Nom_{val}]$
        $[\varphi_{val}]\ \ \ [\varphi_{unv}]$
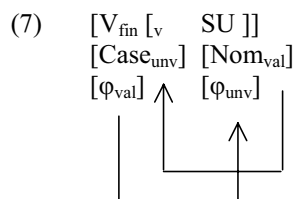
In (7) the subject enters the derivation with an unvalued [Case] feature and valued φ features whereas the finite verb enters the derivation with unvalued φ features but with a valued case-feature. Therefore Agree values both sets of unvalued features. As φ features are meaningless on verbs and Case has no meaning at all, all features except for the subject's φ features will be deleted at LF[11].

Note that this Agree relation is a relation on distance. This is not always the case. In some cases (in fact in many languages, this happens to be the case for verb-subject agreement), it is required that the subject moves to a specifier position of T. In a Bare Phrase model of grammar, this is a problem since heads do not necessarily require a (possibly empty) specifier. To solve this problem, Chomsky (1999, 2001) assumes that in these languages the [Tense] feature is accompanied by a sub-feature of [Tense], namely the [EPP] feature. The [EPP] feature generates a specifier position (Spec,TP[12]) to which the subject may move. Then Agree can take place within the maximal projection of T.

(8)   *Agree after subject movement to T*

Move

        $[_T\ \ \ SU\ \ \ \ [_{T[EPP]}\ V_{fin}\ [_{vP}\ \cancel{SU}\ ]]]$
        $[Nom_{unv}]\ \ \ [Case_{val}]$
        $[\varphi_{val}]\ \ \ \ [\varphi_{unv}]$

Agree
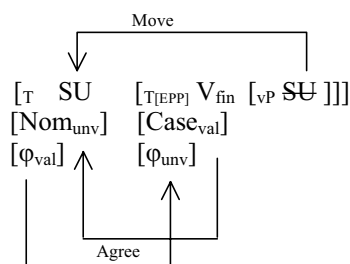
Now, the issue of locality has been left as a problem reflecting two questions. The first question concerns all three syntactic operations, namely how the maximal distance between two constituents is defined such that a syntactic operation, like

---

[11] The minimalist program tries to exclude features that have no semantic content at all. This leads to a puzzle for Case as all Case features will be deleted at LF. Pesetzky and Torrego (2001) therefore argue that nominative case is in fact an (uninterpretable) tense feature. In that case Agree valuates the unvalued φ features on the verb (to be deleted at LF) and the unvalued [Tense] feature on the subject (also to be deleted at LF).

[12] Although TP is an inappropriate notion within Bare Phrase structures, it is still commonly used to express the traditional maximal projection (in this case the highest instance of T).

Move is possible. This question will be answered in the next subsection. The second question only addresses the issue of Agree: what will happen if there is more than one active goal in the correct checking domain?

Chomsky (1999) argues that Agree relation between α and β can only be realised if α and β match (in terms of features) and there is no intervening γ such that γ also matches with α. Chomsky calls this the *defective intervention effect*[13], formalised as a filter as in (9).

(9)   *α > β > γ, wereby α, β, γ match and > is a c-command relation.

However, this constraint is too strong. Ura (1996) and Haraiwa (2001) show there are phenomena in which one head licenses more than one constituent, like Japanese licensing of multiple nominatives by a single *v*° head in raising constructions (10)[14]. In this example the multiple instances of nominative case stand in an Agree relation with the single finite verb *kanjita* 'thought'. Therefore Haraiwa proposes a reformulation of Agree that says that within the proper checking domain α can license both β and γ, unless β matches with γ and has already been valuated by a probe other than α in an earlier stage of the derivation. In other words, Multiple Agree takes place at a simultaneous point in the derivation. I will adopt this theory of Agree for my analysis of Negative Concord.

(10)   John*ga* [yosouijouni nihonjin*ga* eigo*ga* hidoku] kanjita.[15]   Japanese
         John.NOM than-expected the.Japanese.NOM English.NOM bad.INF think.PAST
         'It seemed to John that the Japanese are worse at speaking English than he had expected'

2.1.4   Multiple Spell-Out

In the picture of minimalist syntax that I have sketched so far, the domain in which syntactic relations can take place seems to be restricted to the entire derivation. In principle Agree or Move relations can be established between every two (or more) elements in the derivation. It is impossible to assume filters or any other bans on certain kinds of relations during the derivation as the only loci of determination of the grammaticality of a sentence are LF or PF. Those are the only locations where the derivation may converge or not. However, this would make all kinds of movements or Agree relationships possible, which are ruled out in natural language. Therefore it is assumed Spell-Out occurs more than once during the derivation. This means that some parts of the derivation are spelled out and move to LF and PF whereas the

---

[13] Note that this is basically a reformulation of Rizzi's (1989) Relativized Minimality.

[14] Other examples are Icelandic licensing of multiple accusatives, or overt multiple Wh fronting in Slavic languages.

[15] From Hiraiwa (2001). Japanese is a language in which infinitives fail to assign (nominative) case. All case markings in this sentence have thus been licensed by the matrix light verb.

derivation of the rest of the sentence continues. After Spell-Out these parts are no longer accessible to the rest of the derivation thereby preventing agree-effects over such long distances.
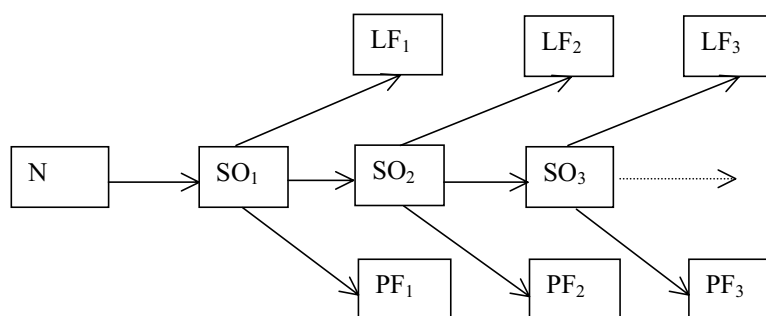
Chomsky refers to these units as *phases*.[16] The content of a phase is not accessible to the rest of the syntactic system except for the outer layer, the so-called *phase edge*, consisting of the highest head and its specifier(s). This means that an element, in order to move to a position outside the phase, first has to move to one of the phase edges before it can move to the final destination. Agreement can only take place within the same phase or between an element in the phase plus the edge of the phase that is immediately dominated. Note that what is inside the phase is no longer accessible to syntactic operations, rather the phase as a whole is. Phases can be fronted or extraposed, etc.

According to Chomsky, the fact that a phase is no longer open to syntactic operations is derived from its propositional nature. In a framework in which the subject is base-generated in Spec,vP, the smallest propositional constituent is vP. The other candidate is the projection that roofs the clause, namely CP. VP cannot be a candidate since it lacks a subject, and TP is not a candidate because essential elements of the clause like focus or topic markers are outside TP.
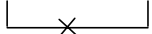
Idiomatic expressions are good examples of elements that have to be interpreted in one and the same phase. In that case they can have their idiomatic reading (11)a. Parts of idiomatic expressions may escape from the vP through a landing-site in Spec,vP if a copy is still in vP in order to be interpreted (11)b. In (11)c the adverb *niet* forms a negative island from which manner adverbs cannot escape (Honcoop 1998). The first part of the idiomatic expression 'met zijn neus' cannot be base-generated inside the phase vP, and hence the idiomatic reading becomes unavailable.

---

[16] Note that the notion of *phase* stems from the notion of *Cycle* (Chomsky 1973, 1977). Cycles can be thought of as domains (clauses) for syntactic operations. Once an operation has taken place that moves an element out of cycle 1 into a higher cycle 2, no other syntactic operation is allowed to apply in the cycle 1.

(11)   a.   [C Hij zit [met zijn neus in de boeken]]   Dutch
            He sits with his nose in the books
            'He is a reading addict'
       b.   [C [Met zijn neus]i zit hij [v ti in de boeken ti]]
            With his nose sits he in the books
            'He is a reading addict'
       c.   [C Met zijn neus zit hij [v *niet* in de boeken]]
            With his nose sits he not in the books
            *'He isn't a reading addict'[17]

Currently, it is also assumed that DP's form a phase (Matushansky 2002) or that some
kinds of VP's are phases (Legate 1998). Abels (2003) suggests that PP's also exhibit
phase-like behaviour. Epstein and Seely (2002b) even propose that every maximal
projection is a phase. However, the question which projections are phases and which
not is beyond the scope of this study. For the analysis of negation, the most important
fact is that v[18] and C are heads of a phase edge.[19]

Note that the theory of phases leaves us with a problem for agreement over the phase
boundary. Still we can find many examples in natural language agreement relations
between elements in different phases (without previous stages of the derivation where
the two elements are in the same phases). Wh in-situ is a good example but so is
subject-verb agreement in SOV languages: phase theory would block the following
Agree relation in Dutch subordinate clauses since the verb is located in a position
lower than $v°$ and T is in a position higher than vP.

(12)   … dat [T Marie [v vaak [V slaapt]]]

         … that Mary often sleeps

Spell-Out fails to be the distinction between overt and covert movement since V_{fin}
cannot escape out of the phase through LF movement after Spell-Out (as a result of
the cyclic nature spell-out). This requires a more fundamental approach of covert
movement. Apparently the finite verb in (12) did move under the assumptions of
phase theory: otherwise the Agree relation could not have been established. But the
phonological content, i.e. the phonological features, did not move along with the

---

[17] This sentence is not ungrammatical. It maintains its literal reading. The idiomatic reading however is
no longer available, hence the asterix in front of the 3rd line.

[18] This only holds under the assumption that all verbal phrases have a $v°$ head. Originally $v°$ has been
introduced to distinguish ergative from unergative VP's. Only unergative verbs can be headed by $v°$.
Under these analyses the v phase should be reformulated as the phases headed by the highest V head in
a Larsonian VP shell (Larson 1988).

[19] Locality forms the core of syntactic theory, and it should be acknowledged that the theory sketched
here is far from complete. For example, not all locality effects can be reduced to phases (e.g. relativized
minimality (Rizzi 1989)). Phase theory also faces several problems. However, in this chapter I will
leave these facts outside the discussion. Locality effects that are of importance for the theory of
negation I present in this book will be introduced in due course.

formal (and semantic features) of the finite verb. Hence covert movement should be understood as feature movement from one head position to another head position (in this case *v* to T movement).

This leads us to at least two kinds of movement: *overt movement* (in which a LI or constituent raises to a higher position, leaving a non-spelled out copy) and *feature movement* (in which the formal (and semantic) features move along, adjoining to ahigher head).

(13)   X
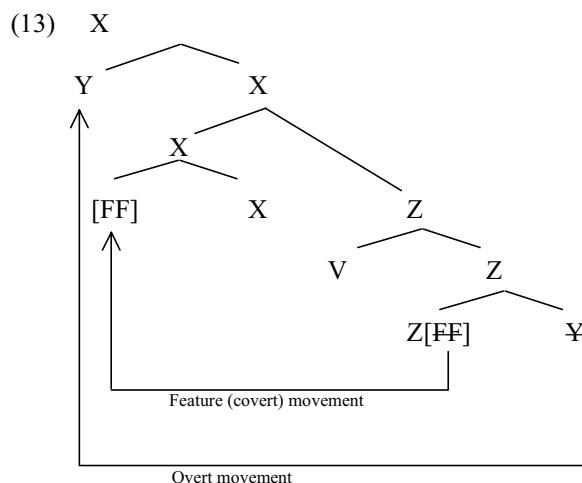
To summarise, the minimalist program tries to reduce syntactic principles to interface conditions, leaving only two operations in the core of the linguistic component: Merge and Agree and conditions on locality. Given that, ideally, Agree only establishes relations between interpretable and uninterpretable elements, even Agree can be thought of as an interface operation. Thus syntactic theory can even be reduced to the operation Merge and locality restrictions, e.g. in terms of phases. Within this framework I will formulate my analysis for the interpretation of (multiple) negation.

2.2   *Truth-conditional semantics*

In this section I will discuss some important notions in semantic theory that I will use for the analysis of negation. In the first subsection I will briefly describe how the current semantic theories that I will use are built on Frege's *Principle of Compositionality*. After that I will outline Lambda Calculus and type theory and show how it can be used to formulate compositional semantics. In 2.2.3 I will describe some basic aspects of quantification in natural language and describe different types of variable binding. I will also discuss Heim's (1982) theory of free variables and Kamp's (1981) theory of discourse markers. Finally I will briefly evaluate the (neo-)

Davidsonian approach of event semantics. This section is not meant as a very brief summary of semantics. It is only meant as a motivation for the adoption of certain semantic notions for my theory of negation and Negative Concord.

2.2.1   The Principle of Compositionality

Davidson (1967a) argues that, similar to formal languages, the meaning of an indicative sentence (a proposition) is captured by its truth conditions: the meaning of a sentence is constituted by the conditions under which this sentence is true. Hence Davidson requires that every theory of meaning should minimally fulfil the condition that the meaning of a sentence follows from its truth conditions. Hence every theory of meaning minimally requires a truth definition. Davidson follows Tarski (1935, 1956) who argues that a truth-definition should meet a criterion of material adequacy (14) that he formulates in terms of *Convention T*.

(14)   A truth definition is materially adequate if every equivalence of the form:
         (*T*)   *X* is true if and only if *p*,
                  whereby *X* is the name of a sentence and *p* is the sentence itself or a
                  translation of it,
         can be derived from the theory.

Convention *T* is thus not a truth definition, but an instrument to test a given truth definition on its correctness.

At first sight this may seem trivial, though it is absolutely not, given that this holds for every sentence in a particular language, including those sentences that have never been heard or produced before. Speakers of a language understand the meaning of every sentence in their language, and hence they are able to derive the truth conditions of all these sentences by means of their parts, i.e. the meaning of all lexical elements and the way they are structured in the sentence. This asks for a semantic theory that is based on the so-called Principle of Compositionality.
Gottlob Frege (1892) has been attributed the fatherhood of all semantics theories that obey the Principle of Compositionality. This principle postulates that meaning is compositional, i.e. every element that is present in (some parts of) the sentence will contribute to the meaning of the sentence, and the meaning of a sentence can only be constructed from the meaning of its parts.

(15)   *Principle of Compositionality*:
         The meaning of a sentence is a function of the meanings of its parts and their
         mode of composition.[20]

---

[20] Cf. Janssen 1997.

This implies that the meaning of a sentence should be constructed from its syntax. Unordered sets of lexical items do not contribute to the meaning of the sentence as the meaning of a sentence is purely reducible from the meanings of the parts and their internal ordering. In the case of unordered sets of lexical items (i.e. without any syntax) the mode of composition remains undetermined and hence the sentence becomes ambiguous (or uninterpretable). Therefore, the input of semantics is a syntactic level of representation. In standard generative theory this level of representation is LF, the interface between syntax and the intentional-conceptual component. One of the main advantages of applying semantics at the level of LF is that it prevents scopal ambiguities that may arise at surface structure. Take for example a sentence as in (16).

(16)   Every boy likes a girl
        LF1:   [[Every boy] [likes [a girl]]]
                $\forall x[\textbf{boy'}(x) \rightarrow \exists y[\textbf{girl'}(y) \, \& \, \textbf{like'}(x, y)]]$
        LF2:   [[A girl] [[every boy] likes]]
                $\exists x[\textbf{girl'}(x) \, \& \, \forall y[\textbf{boy'}(y) \rightarrow \textbf{like'}(y, x)]]$

Whereas (16) is an ambiguous sentence, both LF representations are unambiguous and distinct. These kinds of ambiguities were used as motivation for a translation from the surface structure into a logical form before the interpretation procedure takes place. Frege, Russel, Whitehead and Quine, a.o. propagated such theories. Montague (1970) argued that similar to formal languages, natural language should be interpreted directly, i.e. without any intermediate representation, hence introducing Montague Grammar (Montague 1973).
In the next section I will continue the discussion about the division of labour between the syntactic and semantic component.

2.2.2   Lambda Calculus and Type-theory

In order to determine the meaning of a sentence as a result of the meaning of its parts, what semantic type each syntactic category corresponds to, should be examined first. There are two basic types of denotations. First, definite DP's (including proper names) denote entities or individuals. These elements are said to have type *e*. Second, sentences have type *t*, since only sentences have a truth-value given their propositional nature. All other categories can be thought of as functions from one type onto another[21]. These have type <α,β> where α is a type and β is a type. <α,β> means that it is the type of function that maps elements of type α onto type β. Intransitive verbs map an individual (the subject) to a truth-value (the sentence). Therefore intransitive verbs have type <e,t>. Consequently, transitive verbs have <e,<e,t>> as

---

[21] This only concerns their basic types. The number of types can be extended to events (section 2.2.4), situations, etc. in order to obtain a more adequate representation of meanings.

they first map an object to an intransitive verb and then a subject to a sentence. Nouns (NP), adjectives (AP's) and predicates (VP's) all have type $<e,t>$, etc[22].

Functions are formulated by means of lambda calculus. Lambda expressions consist of two parts: the domain of the function (introduced by λ) followed by the value description, i.e. the function over the domain. In the case of an intransitive verb, the domain of the function is D_e, the set of all individuals. Thus λ introduces a variable x of type e. The function consists of the semantic denotation of the verb applied to this variable x. Thus the translation of a verb like 'to sleep' in lambda calculus is:

(17)   to sleep $\rightsquigarrow$ λx.**sleep**(x)

Now we are able to define the interpretation of sentences and parts in terms of functions of elements of different types. The interpretation of an expression of type e is the entity it refers to: the interpretation of the sentence is its truth-value, and the interpretation of any other element is the function it denotes.

(18)   a. [[**John**]] = John
           b. [[**snores**]] = λx.snore(x)
           c. [[**John snores**]] = true iff John snores

Let us now look at the interpretation of different parts of the syntactic input for the semantics. One can distinguish *terminal nodes, non-branching nodes* and *branching nodes.* Terminals have to be specified in the lexicon; non-branching nodes 'adopt' the interpretation of their daughter; branching nodes are the locus of so-called *Functional Application* (FA), one of the semantic operations:

(19)   a. If α is a terminal node, [[α]] is specified in the lexicon
           b. If α is a non-branching node and β is its daughter, then [[α]] is [[β]]
           c. If $\{\beta, \gamma\}$ is the set of daughters of branching node α, and [[β]] is in $D_{<a,b>}$ and [[γ]] is in D_a, then [[α]] = [[β]]([[γ]])

Functional application is one semantic mechanism. Another semantic mechanism is so-called *Predicate Modification* (PM). Whenever two daughters of the same projection are both of type $<e,t>$, e.g. an adjective-noun combination, the interpretation refers to the intersection of the two sets that the predicates refer to.

(20)   Predicate Modification[23]:
           If $\{\beta, \gamma\}$ is the set of daughters of branching node α, and [[β]] and [[γ]] are both in $D_{<e,t>}$, then [[α]] = λx.[[[β]](x) & [[γ]](x)]

---

[22] Note that this only applies to basic nouns, adjectives or predicates. E.g. the meaning of an intensional adjective like 'possible' cannot be captured by the type $<e,t>$ since it does not map individuals onto propositions.

[23] The term 'predicate modification' is actually a misnomer, as modification implies that an element of a type α is modified by an element of type $<\alpha,\alpha>$.

This means that the interpretation of 'old man' is a function from entities to truth-values such that the function yields a truth-value 1 if and only if the entity is both in the set OLD and in the set MAN[24].

Such semantic theories that use type-theory to compose the meaning of sentences out of their parts are said to be type-driven.

2.2.3 Quantifiers and variables

The assumption that definite DP's such as 'John' or 'the man with the golden gun' are of type e is appealing. Quantifying DP's that bind a variable however cannot be regarded as entities as they do not refer to a particular element in D_e. Hence quantifiers are not of type e. As sentences (having type t) can be composed of a quantifier and a predicate (of type <e,t>) through Function Application (FA), the minimally required type of quantifiers is type <<e,t>t>. Quantifiers are thus functions that map predicates onto truth-values. Intuitively this makes lots of sense as expressions like 'nobody' or 'everybody' tell that no individual respectively every individual has a particular property. Recall that every quantifier has a restrictive clause (such as *thing* in *everything* or *man* in *no man walks*). Therefore we can assume the following semantics for quantifiers: (21)a-b are members of D<<e,t>t> but the original quantifier *every* in (21)c has type <<e,t>,<<e,t>t>> since it maps to predicates of type <e,t> to a proposition of type t.

(21) a. [[**Nothing**]] = $\lambda P.\neg\exists x.$[**Thing'**(x) & P(x)]
      b. [[**Somebody**]] = $\lambda P.\exists x.$[**Human'**(x) & P(x)]
      c. [[**Every**]] = $\lambda P\lambda Q.\forall x.$[P(x) → Q(x)]

This analysis that has developed into the theory of *Generalised Quantifiers* (Montague 1973, Barwise & Cooper 1981) so far only applies to quantifying subjects. Whenever a quantifier is in object position, a type mismatch will occur. In the next subsection I will discuss different kinds of solutions to this type mismatch.

The picture sketched so far shows two kinds of possible treatments for pronominal DP's: either they are bound variables or they are referring expressions. Examples of the two kinds are found in (22).

(22) a. John likes Mary. **He** is a fool.
      b. Every boy$_i$ says **he$_i$** likes Mary.

In (22)a 'he' refers to John; in (22)b 'he' is bound by the antecedent 'every boy'. However, it has been observed that some pronouns are neither a bound variable[25] nor a referring expression.

---

[24] This does not always hold: 'possible suspect' is not denoted by the intersection of the set POSSIBLE and the set SUSPECT. Also scalar predicates such as 'small' or 'red' do not obey predicate modification as defined in (20).

(23)   a.   A man$_i$ walks in the park. **He$_i$** whistles
       b.   If a man$_i$ walks in the park, **he$_i$** likes trees
       c.   If a farmer$_i$ owns a donkey$_j$, **he$_i$** beats **it$_j$**

Clearly all pronouns in (23) are not referring expressions as they do not refer to any specific entity. Additionally, they cannot be bound as there is no c-command relation between the indefinite antecedent and the pronoun. Moreover in (23)b-c, the binding relation gets a universal interpretation: 'every man who walks in the park likes trees' and 'every farmer beats all of his donkeys'. Therefore, the semantic theory needs to be expanded[26]. An approach has been formulated by Kamp and Heim independently: Kamp's (1981) theory of Discourse Representation Theory and Heim's (1982) theory of file-change semantics and Heim's (1990) theory of E-type anaphora. The dynamic Kamp-Heim approach suggests that indefinites are not represented by means of an existential quantifier but as a free variable that is introduced:

(24)   [[**a man**]] = man(x)

All indefinites introduce variables (discourse markers in Kamp's terms). Definite expressions pick out a referent. Heim captures the representation of a text as a set of file-cards (for every referent one) whereby every indefinite introduces a new file-card and for every definite expression a file-card is updated. Kamp uses Discourse Representation Structures (DRS) to describe the representation of texts in first-order logic using a box notation. These boxes can be seen as a more general form of file-card semantics that does not only include information about referents but also includes conditional and quantificational structures.

Free variables still have to be bound. Given the mechanism of *unselective binding*, any 'real' quantifier, including adverbial quantifiers (cf. Diesing 1992), can bind any variable in its scope (i.e. their c-command domain). If at the end of the representation of the text some variables are still free, they will be implicitly bound existentially. This mechanism is called *existential closure*. After the representation of the text has been completed, the truth-conditional interpretation of the text takes place.

The Kamp-Heim approach has led to some unwelcome results, which as a reaction yielded a fruitful branch of semantics working on problems related to so-called 'donkey anaphora'[27]. A critical study of dynamic approaches to binding phenomena falls outside the scope of this study. The reason to discuss indefinites in this section is because I will analyze so-called n-words in Negative Concord languages as indefinites bound existentially by a negative operator.

---

[25] Note that binding requires a c-command relation.
[26] The original observation goes back to Lewis (1975). Cf. also Evans (1977) and Cooper (1979).
[27] See Heim (1990) on E-type anaphora, Groenendijk & Stokhof (1991) on Dynamic Predicate Logic, Groenendijk & Stokhof (1990) on Dynamic Montague Grammar, Chierchia (1995) for a combined approach of dynamic semantics and E-type anaphora, Jacobson (2000) on variable-free semantics and Elbourne (2002) for an analysis in terms of situation semantics.

2.2.4   Event semantics

It was suggested by Davidson (1967b) that action sentences (i.e. non-statives) do not merely express an n-ary relation between the verb's n arguments, but in fact express an n+1-ary relation between the nominal arguments and an event variable that is bounded existentially. Hence the sentence in (25)a does not get a semantic representation as in (25)b, but as in (25)c.

(25)   a.   Fred buttered the toast slowly in the bathroom with the knife
        b.   [**with'**(k)(**in'**(b)(**slowly'**(**butter'**)))] (**f**, t)
        c. $\exists$e[**butter'**(e, **f**, t) & **slowly'**(e) & **in'**(e, b) & **with'**(e, k)]

At first sight, the introduction of an extra ontological category looks superfluous as (25)b and (25)c represent both the interpretation of the sentence correctly. Parsons (1990) however formulates three kinds of arguments in favour of a Davidsonian theory of event semantics: *the modifier argument*, *the argument from explicit event reference* and *the argument from perception reports*[28].

The modifier argument compares verbal modification with nominal modification and says that nominal and verbal modification show to a large extent the same kind of behaviour. The main properties of nominal modification are *permutation* and *drop*. Permutation says that the internal order of adjectives and adverbial does not matter to the semantics. Drop says that a noun or verb with n+1 modifiers entails the noun or verb with n modifiers[29].

This argument faces some serious problems. It has been argued that the internal scope of adverbs is due to a hierarchy (Cinque 1997). This means that the reversion of the order is either impossible or leads to scope changes[30]. Therefore the semantics of two representations with a different adverbial order are never equal. This claim has been extended to prepositional adverbials (Cf. Koster 1974, 2000, Barbiers 1995, Schweikert t.a.). Also drop leads to problems with modifications by modality adverbs as possibly, probably or perhaps, which certainly do not entail the event.

Whereas the first argument introduces unwelcome results, the second argument is more persuasive. Take the following example[31].

(26)   a.   In every burning, oxygen is consumed
        b.   John burnt wood yesterday
        c.   Hence, Oxygen was consumed yesterday

---

[28] Cf. also Landman (2000), a.o. for a support of event semantics.

[29] This is not the case for all modifiers. Intensional or scalar modifiers cannot always be dropped under entailment. 'This is a potential problem' does not entail 'this is a problem', and 'this is a small pink elephant' does not necessarily entail 'this is a small elephant'. (Cf. Landman 2000).

[30] Cinque's hierarchy excludes permutation of adverbs. However, many instances of reverse adverb orders have been found (Nilsen 2003). These examples do show scopal differences.

[31] Taken from Parsons 1990.

In this example it is intuitively clear that burning events are quantified over. Rothstein (1995) provides an argument along the same line as Parsons (1990) in favour of the Davidsonian approach.

(27)   Every time the bell rings, I open the door

Rothstein argues that there is a matching relation between two event variables in this example, one introduced by *ring* and one by *open*, whereby the ring event requires an event modifier in the main clause. Landman (2000) correctly argues that the argument is convincing with respect to the ring event but does not prove that there is a distinct opening event as the event argument could also be introduced by the event modifier through an instantiation relation.

Thus, the argument from explicit event reference proves the possibility of the introduction of an event variable by a verb but not its necessity.

Finally, the argument from perception reports (as (28)) is in favour of the Davidsonian approach since it makes clear what the theme of *saw* in (28)a is, or, what *it* in (28)b refers to.

(28)   a.   John saw Mary leave
             b.   John was in love with Mary. It made her unhappy.

Thus it is shown that there is good evidence to assume event variables in some cases, but not in every case. Therefore, it does not sound plausible to assume that the event variable is introduced by every verb in every situation[32]. Analyses in which a syntactic category that is distinct from the verb (e.g. *v*) introduces an event variable are more attractive in this way (Cf. Chomsky 1995, Ernst 2001, Pylkkänen 2002).[33]

It would be presumptuous to evaluate the discussion and literature on event semantics in this small subsection and this is not my intention either. This subsection is simply meant to show that the assumption of an event variable in a semantic representation is plausible, without making claims about the necessity of event semantics in general or any specific theory in particular. Basically this is what I need for my analysis of negation, as I will show that in some languages sentential negation involves binding of events by a negative operator.

This section on semantics ends here. In a brief description I discussed the main theories and tools that I will need for my analysis of negation. A detailed semantic analysis of negation will be presented in chapter 7 and 8.

---

[32] This is not Davidson's claim either, as he restricts the introduction of events to action sentences.
[33] Or, in a Larsonian V shell structure, the highest instance of V.

2.3   *The syntax-semantics interface*

In the previous sections I described two different domains of linguistic theory. In this section I will describe the relation between these two linguistic fields: the syntax-semantics interface. This interface is subject to the study of how interpretation follows from a structured sentence. As has been shown in the previous section, semantics is derived from the syntactic structure that forms its input. The question in this section is to determine how, where and when syntax meets semantics. In other words, which part of the interpretation is the result of the syntactic derivation and which part of the interpretation is the result of the semantic mechanisms.

Contrary to the previous two sections, which were merely descriptive in nature, this section tries to bridge two sometimes conflicting linguistic fields: One of the central questions in the study of the syntax-semantics interface is the determination of the borderline between syntax and semantics, i.e. where does syntax stop and where does semantics start. Whereas several radical syntactic theories try to reduce semantics to an application of syntactic principles, some semantic theories take syntax to be nothing more than a categorical grammar underlying the semantics, leaving no space for a particular syntax of natural language.

The fact that some of the syntax-semantics interface theories are in conflict with each other requires a less objective evaluation, as the theory of negation that I will present demands a coherent and consistent vision on the interplay between syntax and semantics. In this section I will discuss different proposals concerning the relation between syntax and semantics. In the end, I will propose to take Spell-Out as the border between the two disciplines, although the exact location of this border will turn out not to be crucial for my theory of negation, i.e. it will be applicable in multiple frameworks regarding the syntax-semantics interface.

In the first subsection I will discuss scope ambiguities, in order to show that syntactic surface structures do not always correspond to the semantic input that the correct interpretation requires. In the second subsection I will broaden the topic to the general question where interpretation takes place: at surface structure or at LF.

2.3.1   Scope ambiguities

In 2.2.3, I discussed that quantifiers are of type $<<e,t>,<<e,t>,t>>$ and that quantifying DP's are of type $<<e,t>,t>$. This led to the correct semantics for quantifying subjects, but still leads to a type mismatch for quantifying objects. The VP in (29) for example does not allow for FA.

(29) $[[_{DP}$ Mary$]$ $[_{VP}$ likes someone$]]$
       $[\lambda y.\lambda x.\textbf{like'}(x,y)]([\lambda P.\exists x.[\textbf{human'}(x) \& P(x)]])$

Clearly the object cannot apply FA over the verb because the transitive verb is of type $<e<e,t>>$. But the verb obviously cannot take the quantifier as its argument either.

The problem becomes even more complex when we substitute the subject with another quantifier, since such a sentence does not have one possible interpretation, but two.

(30)   [[$_{DP}$ Everybody] [$_{VP}$ likes someone]]
        $\forall x[\textbf{human'}(x) \rightarrow \exists y[\textbf{human'}(y) \& \textbf{like}(x,y)]]$
        $\exists x[\textbf{human'}(x) \& \forall y[\textbf{human'}(y) \rightarrow \textbf{like}(x,y)]]$

In one reading the subject scopes over the object, and in the other reading the object has scope over the subject. This leads to the questions, what is the correct interpretation procedure of non-subject quantifying DP's and how does one account for these so-called scope ambiguities. This question has been puzzling syntacticians and semanticists for the last decades, leading to several (kinds of) approaches. Basically there two ways of tackling the problem: either there is an abstract syntactic structure (an LF) for every possible interpretation, in which the type of the quantifier object does not cause type mismatches, or the interpretation does take place at surface structure, with type-shift operations being responsible for the correct semantics. In the rest of this section, I will briefly describe the two approaches.

The first approach uses movement as a solution. Although Montague's system tries to derive interpretations at the surface level, his solution contains some additional syntax only motivated for interpretation reasons. His solution, quantifying-in[34], replaces the object quantifier by a pronoun-trace x_n that will be bound by a lambda operator in a later stage of the derivation so that FA becomes possible. The subject-predicate yields a proposition p of type t, but as the pronoun x_n needs to be abstracted, the result $\lambda x_n.p(x_n)$ is of type <e,t>. The object quantifier takes this as its argument, yielding a proposition with the object scoping over the subject. In a proposition with multiple quantifiers, different structures are constructed, each leading to different orderings of quantifiers, in order to derive the possible scope ambiguities. Note that the input for semantics is still the surface structure, but that the types of the quantifiers trigger additional syntax to complete the interpretation procedure.
Rather than taking the surface structure as input for semantics, May (1977) argues that syntax does not stop at Spell-Out but continues the derivation until LF has been produced, a level on which interpretation takes place, i.e. the input for semantics. Quantifiers move covertly to a position from which they take scope (in terms of c-command). This mechanism is called Quantifier Raising (QR) and has been adopted in several modified versions (Huang 1982, May 1985, Fox 2002, Reinhart 1995). Recently, Beghelli & Stowell (1997) have developed a minimalist version of QR in terms of feature checking and quantifiers take scope from different positions in a fine-grained split-CP structure.

---

[34] Cf. Montague (1970). Cf. also Heim & Kratzer (1998).

(31)   SO [$_{IP}$ Everybody loves someone]
        LF [$_{IP}$ Somebody [$_{IP}$ everbody [loves ~~somebody~~]]]
            *$\forall x[\mathbf{hum}(x) \rightarrow \exists y[\mathbf{hum}(y) \ \& \ \mathbf{like}(x,y)]]$
            $^\sqrt{}\exists x[\mathbf{hum}(x) \ \& \ \forall y[\mathbf{hum}(y) \rightarrow \mathbf{like}(x,y)]]$

The second approach tries to derive the correct interpretation without assuming extra syntactic structure that is purely motivated for interpretation reasons. One proposal formulated by Cooper (1975, 1983) is quantifier storage (also known as *Cooper storage*). Cooper storage takes the interpretation of a DP not to be atomic, but forms an ordered set of different interpretations, of which the first member is the traditional denotation and the 'stored' ones are those that are required to obtain scope from a higher position by means of quantifying in. Inverse subject-object scopes are thus obtained by first deriving the subject-object reading and then 'taking the object out of storage' and having it take scope on top of the subject. The translation of every DP is a set consisting of a basic interpretation and a sequence of 'store interpretations,' which can be taken out of storage later on by means of quantifying-in. The interpretation (32) of can then be derived.

(32)   Every man finds a girl

The basic translations for every man and a girl are:

(33)   a.   Every man $\leadsto$ {<<$\lambda P.\forall x[\mathbf{Man}(x) \rightarrow P(x)]$>>}
        b.   A girl $\leadsto$ {<<$\lambda Q.\exists y[\mathbf{Girl}(y) \ \& \ Q(y)]$>>}

DP storage yields an infinite number of non-basic translations

(34)   a.   {<<$\lambda P.P(x_i)$>,< $\lambda P.\forall x[\mathbf{Man}(x) \rightarrow P(x)], x_i$ >> | $x_i \in \boldsymbol{N}$}
        b.   {<<$\lambda Q.Q(x_i)$>,< $\lambda Q.\exists y[\mathbf{Girl}(y) \ \& \ Q(y)], x_i$ >> | $x_i \in \boldsymbol{N}$}

A possible subset of the meaning of (32), consisting of the basic translation for the subject DP and a stored interpretation for the object DP is:

(35)   {<<$\forall x[\mathbf{Man}(x) \rightarrow$ finds(x, x_i)]>, < $\lambda Q.\exists y[\mathbf{Girl}(y) \ \& \ Q(y)]$>> | $x_i \in \boldsymbol{N}$ }

Now the final step is NP retrieval in which the second sequence is applied over the first by means of quantifying in over x_i.

(36)   <<$\lambda Q.\exists y[\mathbf{Girl}(y) \ \& \ Q(y)](\lambda x_i.\forall x[\mathbf{Man}(x) \rightarrow$ finds(x, x_i)])>> =
        <<.$\exists y[\mathbf{Girl}(y) \ \& \ \forall x[\mathbf{Man}(x) \rightarrow$ finds(x, y)]>>

This yields the object > subject reading from the same syntactic structure as the subject > object reading is derived.[35]

---

[35] Examples taken from Hendriks (1993).

Although this simplifies the required syntax to only one structure, it makes the interpretation procedure far more complex, as the interpretation does not yield sets of meanings (for ambiguity) but 'sets of sequences of sequences of meanings'[36].

In order to prevent this additional machinery, Hendriks (1993) proposes to loosen the strict correspondence between syntactic categories and semantic types and accounts for scopal ambiguities using flexible types, in which the semantic type can be lifted to a more complex type if the scope of a quantifier so requires. The idea is in a way similar to Cooper's idea that DP's have a basic translation and a 'higher' translation that accounts for the scope effect. However, Hendriks' system is able to derive the proper readings without adding as much new machinery to the semantics as Cooper's system does.[37]

In this subsection I discussed very briefly the two approaches of scope ambiguities: by means of QR and by assuming (type) flexibility of the semantics of quantifiers. Note that both approaches are not necessarily restricted to quantifying DP's, although these may be the most common quantifiers. Adverbs can be regarded as (generalised) quantifiers[38] as they bind variables too, such as temporal adverbs binding time variables. Likewise, negation can be seen as a quantifier that binds events.

Moreover, sentences consisting of a quantifying DP and a negation can (in some languages) also give rise to ambiguity.

(37)   Every man didn't leave:
        $A > \neg$ 'Nobody left'
        $\neg > \forall$ 'Not everybody left'

One strategy for solving this ambiguity is either by assuming lowering of the quantifying DP (reconstruction) or by assuming raising of the negation to a higher position (neg-raising). The analysis of neg-raising became popular because moving negation to a higher position turns the negative operator into an operator that maps (positive) propositions into (negative) propositions (hence of type $\langle t,t \rangle$). In a higher position the negation could simply take its propositional sister as its complement.

Another strategy, however, would be to think of negation in terms of an operator with a flexible type. In that case, depending on the type of the negative operator, the correct reading can be produced. In chapter 6 and chapter 8, I will discuss the properties of the negative operator in detail, arguing for a flexible negative operator that can apply to elements of different semantic types.

---

[36] Cooper (1975): p. 160.
[37] It should be noted that Hendriks (1993, ch. 2) places this machinery in the syntactic component again in order to avoid problems with respect to compositionality. Hence this mechanism is not entirely semantic.
[38] Cf. De Swart (1991).

2.3.2   The level of interpretation

The question where syntax meets semantics has been a long debate that probably will never end. One of the two main approaches says that syntax constructs Logical Forms that are unambiguous, from which the semantics then gives the correct interpretation. Ambiguity is then the result of two multiple LF's that are derived from the same syntactic structure (or linear order) at Spell Out. The other approach takes interpretation to take place at surface structure and uses semantic devices to derive the correct interpretations. This does not exclude that there are no ways in between. It might be the case that some phenomena are derived by QR and others by semantic mechanisms. Another alternative would be to assume that the interpretation and the syntactic derivation go hand in hand and that semantics does not take completed syntactic objects as its input. Note that this falls back to the original Montague approach but that in a way this is also a radicalisation of multiple Spell-Out in the sense of Epstein & Seely (2002b)[39].

The debate about the locus of interpretation has to a large extent a conceptual and theoretical nature, and the two approaches seem complementary in terms of theoretical complexity: a reduction of the theory of syntax as a result of deleting QR leads to more complexity in the semantic system and vice versa. Therefore heuristic arguments rather than empirical arguments have been produced many times for particular analyses.
Yet, it is not impossible to produce empirical arguments in favour of LF movement: it has been argued that Antecedent Contained Deletion (ACD) requires movement of the quantifier out of the subordinate clause to an adjunct position on TP, leading to an LF as in (38).

(38)   a.   I read every book that you did
          b. $[[_{DP}$ Every book$_1$ that you did ~~read~~ t$_1]$ $[_{TP}$ I [PAST read t$_i]]]$

If the quantifying DP has moved out of its low position in the subordinate clause, it leaves a trace that is identical to the trace in the main clause. Therefore the VP's in both the subordinate clause and in the main clause are identical. This identity licenses the VP deletion in the subordinate clause.[40,41]

Other arguments are that QR is clause bound and that QR interacts with other phenomena such as VP-ellipsis and overt *Wh*-movement[42], which are all sensitive to syntactic effects such as cross-over. In (39) the object quantifier may not cross over the c-commanding pronoun *he*, but if the pronoun does not stand in a c-commanding

---

[39] This is also in line with Jacobson's (1999) ideas on variable-free semantics and direct compositionality.
[40] This argument goes back to Sag (1980) and is repeated in May (1985).
[41] See Jacobson (1992) for an account of ACD without LF movement.
[42] For more examples, see Szabolcsi 2001.

relationship with the object, as holds for the possessive pronoun *his*, LF movement is marginally acceptable.

(39) a. He admires every man
          *∀x.[**admire**(x,x)]
      b. His mother admires every man
          $^?$∀x.[**admire**(x's mother,x)]

Note also that QR is also taken to be responsible for the covert movement of *Wh*-words in *Wh*-in situ languages such as Chinese. Also in those cases, QR is sensitive to phenomena such as island effects, e.g. *Wh* islands.

(40) a. $^‰$Who are you wondering whether to invite
      b. *How are you wondering whether to behave

(41) a. Ni renwei [Lisi yinggai zenmeyang chuli zhe-jian shi][43]   Chinese
          You think Lisi should how handle-this.CL matter
          'How(manner) do you think Lisi should handle this matter'
      b. *Ni xiang-zhidaou [shei zenmeyang chuli zhe-jian shi]
          You wonder who how handle-this.CL matter
          'How(manner) do you wonder who handled this matter'

However, other analyses for these phenomena are not inconceivable. The fact that current analyses deal with these problems in a syntactic fashion does not exclude or disprove the possibility of formulating semantic answers to these problems. *Wh* island effects for example can be thought of as semantic effects because they are all introduced by downward entailing contexts[44]. Clause-boundedness and the cross-over effects may perhaps also be accounted for in a semantic way.

The arguments against LF movement are primarily conceptual. Note that LF movement is a stipulated notion after all as evidence can only be proven indirectly. Therefore LF met much scepsis. I already presented some of the semantic solutions (Cooper and Hendriks), but also the status of LF movement within the syntactic program is still unclear[45]. Williams (1986, 1988) is the first to argue against LF, and he suggests that the function of LF should be divided amongst other components of the system. Hornstein (1995) argues that scope effects are due to deletion of copies of elements in A-Chains before meeting the CI-interface. Since the choice of deletion is free in A-Chains, scope ambiguities are expected to occur. Kayne (1998) shows that subsequent remnant movement can account for many scope ambiguities. The underlying idea is that both quantifiers move out of the VP in order to check their

---

[43] Data from Legendre, e.a. (1995).
[44] Cf. Szabolcsi & Zwarts (1993), Honcoop 1998.
[45] Note that the minimalist model of grammar depends on the notion of LF. However, erasure of LF in this sense would not undermine to the model, only movement between Spell-Out and LF would be forbidden, so that the level of interpretation is surface structure.

features and that the VP is fronted afterwards. This system could then produce surface structures as in (42), in which each surface structure is unambiguous. Syntactic proposals like this one can provide the correct semantic inputs at surface structure.

(42)   I force you to marry nobody
         I force you to [marry$_i$ [nobody$_j$ [t$_i$ t$_j$]]]
         I [force you to marry]$_i$ [nobody$_j$ [t$_i$ t$_j$]]

An alternative way of discarding LF movement by movement before Spell-Out is by assuming that covert movement is nothing but feature movement and that therefore all movement takes place before Spell-Out. As the minimalist system provides this kind of movement, LF movement is no longer necessary and can therefore on minimalist grounds be ruled out.

To conclude, there is hardly any empirical support to maintain the notion of LF-movement, but there is hardly any counter-evidence either. Still, empirical arguments should form the basis for the adoption of a level of interpretation after Spell-Out.
Several empirical phenomena have led to an explanation in terms of LF movement: Quantifier Raising phenomena, such as inverse scope effects, ACD and (weak) crossover effects; reconstruction (in which an element lowers at LF to yield the correct interpretation) and neg-raising effects (in which the negation moves to a higher position in the clause).
In this study I will remain professionally impartial with respect to the question whether LF should be adopted as a separate level for interpretation, or whether semantic mechanisms like type shifting should be introduced. An elaborate analysis of these phenomena is beyond the scope of this study. Therefore I will restrict myself only to the role of negation as neg raising as an argument in the debate, and I will show that negation does not provide any arguments in favour of the adoption of LF as a separate level of interpretation by showing that all interpretations of sentences in which a negation has been included can be derived from surface structure.

2.4   Conclusions

In this chapter I have provided a brief overview of current syntactic and semantic theories and assumptions and their internal relationships. The first motivation for is to describe the tools and machinery that I will be using throughout the rest of this book. The second motivation concerns the interface between syntax and semantics and the question whether my theory of negation provides arguments in favour of LF movement. In this study I will develop a syntactic model in which interpretation of negation takes place at surface structure. As a consequence, neg-raising, which has often been presented as an argument together with QR, in favour of LF movement, does not provide evidence for the assumption of a level of interpretation that differs from surface structure. I will show that all correct interpretations can be derived from surface structure. Thus I bring a contribution to the debate about the locus of

interpretation, arguing that negation cannot be a motivation to adopt a level of Logical Form after Spell Out.

In the rest of the book, I will combine minimalist syntax and truth-conditional semantics, including indefinites in the Heimian sense, and I will adopt the notion of events without making any further claims about their status in the semantic theory.

3   Issues in the study of negation

In this chapter I will discuss five topics that have occupied a central position in the study of negation. These topics have been well investigated the last 15 years, but the extent to which these topics are correlated has not often been subject of study. One of the central aims of this study is to describe and explain the correlations between these different topics. The aim of this chapter is therefore not to provide an overview of the literature on these chapters, but to provide (working) definitions of the different phenomena and to introduce the questions that will be addressed throughout the rest of this book. In this chapter I will briefly introduce each topic.

In section 3.1 I will discuss the notion of negative element and will relate this to the study of Negative Polarity Items; in section 3.2 I will discuss what constitutes sentential negation and in which ways sentential negation can be expressed cross-linguistically (including the diachronic developments known as the *Jespersen Cycle*); in 3.3 the interpretation of clauses or sentences with more than one negative element is discussed; in 3.4 I discuss the form and availability of (true) negative imperatives; and finally, the relation between negatives and universal quantifiers subjects ($\forall$-subjects) will be discussed in 3.5.

These five issues will not be treated as distinct problem sets. In the next two chapters I examine the correlation between these five topics, and in chapters 6-8, I explain these phenomena from the perspective of these empirical correlations.

3.1   *Negative contexts and polarity items*

In this section I provide a working definition of negative elements. In order to do so, I first describe what counts as a negative element by providing a set of examples that intuitively belong to the class of negative elements. Then I will discuss what the common property is that all negative elements share and that is not shared by any other element. As negative elements by definition are able to license Negative Polarity Items, the question what is a proper definition for negative elements corresponds to the question what are the licensing properties of NPI's (except for being negative). I discuss different approaches in the literature about which properties NPI licensers have in common, and I argue that the common property of a subset of the set of all NPI-licensers, namely anti-veridicality (Giannakidou 1997, a.o.), corresponds to the common property of negative elements and thus I will provide working definitions for negative elements, negative markers and n-words in terms of anti-veridicality.

I will conclude this section by describing the difference between contradictory and contrary negation and illustrate this distinction by applying both kinds of negative operators to scalar predicates.

3.1.1   Negative elements

Before defining negative elements properly, I will give examples of elements that count as negative elements. Based on syntactic, semantic and lexical differences, four kinds of negative elements can be distinguished. First, negative markers indicate negation and are generally used to express sentential negation (see also subsection 3.2.2).

(1)   a.   Jan loopt *niet*   Dutch
             John walks *neg*
             $\neg$**walk'(j)**
        b.   John does *not* walk   English
             $\neg$**walk'(j)**

Second, *negative quantifiers* are negative elements. Negative quantifiers are elements that do not only negate a clause or constituent but also bind a particular variable within that clause or constituent[46].

(2)   a.   Jan ziet *niets*   Dutch
             John sees n- thing
             $\neg\exists$x.[**thing'**(x) & **see'(j**, x)]
        b.   John sees *nothing*   English
             $\neg\exists$x.[**thing'**(x) & **see'(j**, x)]

Third, there is a class of negative elements, which depending on their position within a syntactic configuration give or do not give rise to negation. Sometimes the interpretation of such a negative element is equivalent to the interpretation of a negative quantifier, sometimes it is similar to the interpretation of a non-negative existential quantifier. In the first example (3)a *personne* has a negative reading whereas *rien* is assigned a non-negative existential interpretation. In (3)b the reverse is the case: *rien* seems to be negative and *personne* not. A similar phenomenon is going on in (4). In the first sentence *nessuno* is interpreted negatively; in the second example it does not seem to contribute to the negative semantics, as the negative operator has already been introduced by *non*. Negative elements, such as French *personne* or *rien* or Italian *nessuno* are referred to as *n-words*[47].

(3)   a.   *Personne ne* mange *rien*   French
             N-body neg eats n-thing
             'Nobody eats anything'

---

[46] One can argue that negative markers also bind a variable, e.g. an event or situational variable. For the moment I will leave this question aside, but I readdress it in chapters 6-8.
[47] After Laka (1990).

    b.   *Rien n'*est fait par *personne*
        N-thing neg.is done by n-body
        'Nothing is done by anybody'

(4)   a.   *Nessuno* ha telefonato   Italian
        N-body has called
        'Nobody called'
    b.   *Non* ha telefonato *nessuno*
        Neg has called n-body
        'Nobody called'

Finally, some elements do not have a strict negative reading, but have a clear negative semantic connotation. Several verbs (*fear*, *fail*, *doubt*) and prepositions (*without*, *unless*) express 'negative' relationships. Note that their positive counterparts in combination with a negation can easily paraphrase the semantics of these elements.

(5)   a.   Marie a assasiné Jean sans couteau   French
        Mary has killed John without knife
        $\exists e[\textbf{kill'}(e)\ \&\ \textbf{Agent'}(e, \textbf{m})\ \&\ \textbf{Patient'}(e, \textbf{j})\ \&\ \textbf{without'}(e, \textbf{knife})]$
        $\exists e[\textbf{kill'}(e)\ \&\ \textbf{Agent'}(e, \textbf{m})\ \&\ \textbf{Patient'}(e, \textbf{j})\ \&\ \neg\textbf{with'}(e, \textbf{knife})]$
    b.   *Few* girls like John
        FEW(GIRL)(LIKE_JOHN) $\Leftrightarrow$ $\neg$MANY(GIRL)(LIKE_JOHN)

The four classes are summarised in (6).

(6)   *Negative elements*

Negative element	*Properties*	*Examples*
Negative markers	Yield (sentential) negation	*Niet* (Dutch) *Not* (English),
Negative quantifiers	Quantifiers that always introduce a negation and that bind a variable within the domain of negation	*Nothing* (English) *Niets* (Dutch)
N-words	Quantifiers that introduce negation in particular syntactic configurations	*Personne, Rien* (French) *Nessuno* (Italian)
Semi-negatives	Verbs or prepositions that have a negative connotation and that can be paraphrased with a true negative sentence	*Sans* (French) *Few* (English)

In order to define these four classes of negative elements formally, one needs to define the common property that is shared by all these elements, but that does not apply to any non-negative element.

A natural attempt to define this property would be negation, i.e. the introduction of a negation in the semantics. However, this assumption faces two serious problems: (i) n-words do not always introduce a negation to the semantics; (ii) semi-negatives do not introduce a negation to the semantics either; only their paraphrases do. An explanation in terms of semi-negatives having an underlying negative lexical semantics (like *without* = *not with*) is not of any help either, since such an argument suffers from circularity: the only motivation to assume this underlying lexical semantics is to account for the fact that they are negative elements.

Another property, which is shared by all elements in (6), is that these elements are able to license Affective Items (AI's). AI's (cf. Giannakidou 1999) are elements that may occur in particular contexts only. A subset of the set of AI's is referred to as Negative Polarity Items (NPI's), since negation (among others) is able to license these elements, as is shown in the examples in (7)-(10) (cf. Van der Wouden 1994a).

(7)   a.   John does*n't* like <u>any</u> spinach   English
      b.   *John likes <u>any</u> spinach

(8)   a.   *Nobody* ate <u>any</u> spinach   English
      b.   *Somebody ate <u>any</u> spinach

(9)   a.   *Personne ne* mange <u>aucun</u> des legumes   French
           N-body eats any of.the vegetables
           'Nobody eats any vegetables'
      b.   *Quelqu'un mange <u>aucun</u> des légumes
           Somebody eats any of.the vegetables
           'Somebody eats any vegetable'

(10) a.   *Few* people ate <u>any</u> spinach   English
      b.   *Many people ate <u>any</u> spinach

Although the class of NPI licensers is broader than the set of the negative elements, a subset of this class is identical to the set of negative elements. Hence if it is clear which property is responsible for NPI licensing, the property that constitutes negative elements can be defined in terms of this NPI-licensing property. Therefore, the study of NPI's and their licensing conditions is fruitful in order to provide a working definition of negative elements. Note that this approach does not suffer from circularity: I will describe some general properties of NPI licenser, that therefore automatically also applies to negation. A subset of these properties should then apply only for negative elements, as NPI's are always licensed under negation.

3.1.2 Negative Polarity Items and their licensing conditions

The study of NPI's has been dominated by four research questions, formulated as follows (cf. Ladusaw 1996):

- The licenser question
- The licensee (marking) question
- The licensing (relation) question
- The status question

The *licenser question* is essential for the determination of what counts as a negative context, since it addresses the question what conditions a proper NPI-licenser needs to fulfil. The *licensee question* seeks an answer to the question why certain elements are only allowed to occur in particular contexts and what distinguishes them from polarity-insensitive elements. The licensee question will play a less important role in this subsection, but will be addressed in the further chapters. The *licensing question* addresses the question of the relation between licenser and its licensee and its answer consists of the conditions for such a relation to be allowed (generally answered in terms of c-command). Finally the *status question* addresses the status of sentences containing unlicensed NPI's: are these sentences syntactically illformed, or semantically or pragmatically infelicitous. My analysis of n-words (chapter 7) presupposes a non-syntactic (i.e. semantic or pragmatic) account of unwellformed NPI expressions.

NPI's can be licensed by negative contexts, and negative contexts are introduced by negative elements (10). However, it is not only negation that can license NPI's. Yes/no questions or conditionals are for example also capable of licensing NPI's[48] (11). Hence we need to determine which property it is that the negative contexts in (10) share, but those contexts as in (11) that also license NPI's do not.

(11)   a.   Do you like <u>any</u> wine?
       b.   If you want to have <u>any</u> wine, please tell me.

Several approaches have been formulated in order to account for NPI[49] licensing. Apart from semantic approaches that I will discuss in detail in this section, syntactic or pragmatic approaches to NPI licensing have been formulated too. Progovac (1993), Neeleman & Van de Koot (2002) account for NPI licensing in terms that are similar to binding theory; Kadmon & Landman (1993), Krifka (1995) and Van Rooij (2003) account for NPI licensing in pragmatic terms. However, as the primary interest is to seek the shared semantic properties of negative elements and NPI licensers, I will focus on the semantic approaches in this subsection. Roughly speaking, two main approaches have been formulated in the semantic literature in NPI licensing: the first approach, put forward by Ladusaw's (1979), Zwarts (1986), Zwarts and Van der Wouden's (1994, 1997) account for NPI licensing in terms of downward entailment

---

[48] Other contexts are formed by if/perhaps clauses, disjunctions, habituals, imperatives, modals, subjunctives, superlatives, comparatives, conditionals, a.o. (Giannakidou 1997, 1999).

[49] Strictly speaking the name NPI no longer holds, since these elements can also be licensed in some non-negative context. This is why Giannakidou refers to these elements as Affective Items (AI's). however, I will continue to use the name NPI, since this is the more common term.

relations. The second approach, proposed by Giannakidou (1997, 1999), following Zwarts (1995), argues that NPI licensing follows from the notion of non-veridicality.

Ladusaw (1979), following an idea by Fauconier (1975, 1979), argues that the common property elements licensing NPI's is *downward entailment*. A function is downward entailing (also known as *monotone decreasing*, or *downward monotonic*) if the following relation holds:

(12)   δ is downward entailing iff $\forall X \forall Y (X \subseteq Y) \rightarrow ([[\delta]](Y) \subseteq [[\delta]](X))$

This definition allows for reasoning from sets to subsets (Van der Wouden 1994a). Thus it can be proven that *nothing* or *few people* and *not* are downward entailing functions, contrary to *something* or *many*:

(13)   a.   Nothing works → Nothing works well
               Something works -/→ Something works well
        b.   Few people sing → Few people sing loudly
               Many people sing -/→ Many people sing loudly
        c.   John doesn't like girls → John doesn't like Mary
               John likes girls -/→ John likes Mary

So far this seems to be a property that is shared by all four classes of negative elements as in (6). However, Van der Wouden (1994a) shows that downward entailment cannot be the only property that underlies negation. First he argues that some NPI's need stronger negative contexts than pure downward entailment thus advocating against downward entailment as a sufficient condition for NPI licensing. This does not have to have any consequences for the quest for the definition of negative contexts, since downward entailment can still be regarded as a sufficient condition for negative contexts. Stronger negative contexts require additional conditions, such as anti-additivity[50] or anti-multiplicativity[51].

Second, contexts introduced by yes/no questions may license NPI's. This does not form any problem either for a definition of negative contexts in terms of downward entailment, since these contexts are not downward entailing themselves. Giannakidou (1997) argues correctly that this is a serious problem for Van der Wouden's theory of NPI licensing, as Van der Wouden tries to define all contexts that allow for NPI licensing in terms of monotonic properties of contexts.

Third, and more importantly, he shows that some non-negative contexts are also downward entailing. I will discuss two examples: comparative clauses[52] and the first argument of *every*[53].

---

[50] A function *f* is anti-additive iff $f(X \cup Y) \rightarrow f(X) \cap f(Y)$.

[51] A function *f* is anti-multiplicative iff $f(X \cap Y) \rightarrow f(X) \cup f(Y)$.

[52] Cf. Hoeksema 1993.

[53] In work by Heim (1982) and Diesing (1992) it has been shown that quantifiers take two variables: a restrictive clause and a nucleus. In *every man walks*, *man* forms the restrictive clause and *walks* forms the nucleus. This is referred to as the tripartite structure of quantifiers.

(14) a. Every car is ugly → Every Ford is ugly
          Every car that is owned by any man is ugly
      b. He runs faster than we thought he could →
                  He runs faster than I thought he could
          He runs faster than anyone thought he could

Intuitively these contexts should not be regarded as negative contexts, given the classification in (6). Although the comparative clauses may be rephrased by a negation (15), which could be an argument in favour of classifying comparatives as semi-negatives too, this is not the case for universal quantifiers.

(15) He runs faster than we thought he could →
              We did not think he could run (any) faster

Hence we have to look for a property that introduces a subset of downward entailment contexts, thus excluding cases such as the ones mentioned above. I argue that this notion is Giannakidou's (1997, 1999) notion of *anti-veridicality*. She derives anti-veridicality from the notion of *non-veridicality*, which is an expansion of downward entailment[54]. (Non-)veridicality and anti-veridicality are defined as in (16):

(16) Let *Op* be a propositional operator
      a. If $Op(p) \rightarrow p$ is logically valid, *Op* is veridical; otherwise it is non-veridical.
      b. If $Op(p) \rightarrow \neg p$ is logically valid, *Op* is anti-veridical.

From these definitions it follows that negative markers (17) and negative adverbs like 'never' are anti-veridical.

(17) a. John didn't come → ¬**come(j)**
      b. John never came → ¬**come(j)**

With respect to determiners we can define (non-)veridicality as follows:

(18) A determiner DET is veridical w.r.t. its NP or complex NP∩CP argument iff it holds that [[DET NP VP]] = 1 → [[NP]] ≠ ∅ or [[DET (NP∩CP) VP]] = 1 → [[NP∩CP)]] ≠ ∅; otherwise DET is non-veridical.

From this it follows that negative arguments like *nobody* or *nothing* (18) are non-veridical.

(19) a. [[*Nobody* came to the party]] = 1 -/→ [[Nobody]] ≠ ∅
      b. [[*No* man danced]] = 1 -/→ [[man]] ≠ ∅

---

[54] For a proof that non-veridicality is indeed an expansion on the notion of Downward Entailment (i.e. the proof that every DE contexts is also non-veridical), cf. Zwarts 1995.

The preposition *without* is also an anti-veridical element (20). But even 'every' is non-veridical with respect to its restrictive clause (21).

(20)   He left *without* saying goodbye → ¬**say'(j**, **goodby**e)

(21)   [[Every man who owns a BMW has no taste]] = 1
        -/→ [[**man who own a BMW**]] ≠∅

Few, *seldom* and *hardly* are not non-veridical elements. *Few* and *hardly* even introduce veridical contexts[55]. *Before* can be veridical, non-veridical or even anti-veridical, depending on the context[56].

(22)   [[Few/hardly any people came]] = 1 → [[Few/hardly any people] ≠ ∅

Giannakidou (1995) accounts for the fact that these semi-negatives license PI's by arguing that PI's can also be licensed indirectly. The difference between direct and indirect licensing is defined as follows.[57]

(23)   a.   A Polarity Item *a* is licensed directly in a sentence S iff S provides some
             expression *z* which is non-veridical, and *a* is the scope of *z*.
        b.   A Polarity Item *a* is licensed indirectly in a sentence S iff S gives rise to a
             negative implicature S' and *a* is under the scope of *the negation at S'*.

Now it is possible to account for the negativity of elements like *few* and *seldom*, since these elements give rise to negative implicatures. This makes it even possible to link non-veridical determiners like *no* to anti-veridical operators

(24)   a.   Few people came → *Not* many people came
        b.   No man came → It is *not* the case that any man came

Now, we can define a negative context as follows: either as a context that is introduced by an anti-veridical operator or a context that gives rise to a negative implicature that contains a negation:

(25)   A negative context C is introduced in sentence S iff
        a.   S contains an anti-veridical operator *Op* that introduces C; or
        b.   S contains an operator *Op* due to which S gives rise to a negative
             implicature S';

---

[55] *Seldom* can also be thought of as a veridical element, as it quantifies over times. 'Seldom people came to the party' means that there is at least one time that people came to the part. It does not imply that no one came to the party.
[56] Cf Giannakidou 1999: 29 for a discussion of (non-)veridical *before*.
[57] Cf. Giannakidou 1997: 92.

However, this definition still suffers from circularity with respect to the second clause because the definition of negative implicature is still defined in terms of negativity. But just as anti-veridicality is the proper definition for negative elements, such as negative markers, negative quantifiers and n-words, is it the property of the negative element in the implicature that is raised after the introduction of a semi-negative in a sentence. Hence (25) can be rephrased by (26):

(26)   A negative context C is introduced in sentence S iff
        a.   S contains an anti-veridical operator *Op* that introduces C; or
        b.   S contains an operator *Op* that enables S to give rise to an implicature S'
            that contains an anti-veridical operator *Op'*.

We saw before that downward entailment is not an incorrect notion for negative contexts, but rather a notion that overgeneralises. Therefore I showed that the notions of a-veridicality and indirect licensing yield the correct restriction on downward entailment. Hence the notion of negative elements (including n-words) can now be defined as follows:

(27)   A *negative element* is an element that under well-defined conditions introduces a negative context C.

A negative element is thus equivalent to the operator *Op* in (25) and (26): it is either an anti-veridical operator or it enables the sentence that it is in to give rise to an implicature containing an anti-veridical operator.

(28)   An *n-word* is an indefinite or quantifying element that only under certain well-defined conditions introduces a negative context.

The exact conditions under which n-words do or do not introduce a negative context will be one of the central topics in this study. For the proper definition of n-words, to distinguish them from Negative Quantifiers, it suffices to say that there are specific conditions under which n-words do not introduce a negative context whereas Negative Quantifiers always introduce a negative context.

Now we have a formal notion of negative contexts and negative elements that serves as a working definition. Throughout the rest of the book I will refer to (26)-(28) when referring to negative contexts or elements, or n-words.

3.1.3 Negative adjectives: Contradictory and Contrary Negation

In the previous section I discussed four types of negative elements that have been introduced in 3.1.1. Another class of negative elements is formed by prefixes that generally form negative adjectives, like English *un-*. Before discussing these examples in detail, we should first have a look at some formal properties of negation.

Two laws govern negation in Aristotelian logic: the Law of Contradiction and the Law of the Excluded Middle. The first law demands that two opposite propositions cannot be true simultaneously; the Law of the Excluded Middle requires that of any two opposite propositions, one is true.

(29)   a.   Law of Contradiction (LC): $\neg(p \mathrel{\&} \neg p)$
       b.   Law of the Excluded Middle (LEM): $\neg p \vee p$

Standard negation, as we saw in the previous cases, obeys both laws:

(30)   a.   John is older than 18
       b.   John is *not* older than 18

Whatever John's age may be, it follows immediately that these sentences cannot be true simultaneously and that one of the sentences in (30) is true so both laws apply.

However, not every instance of negation obeys both laws:

(31)   a.   John is friendly
       b.   John is *un*friendly

The Law of Contradiction still holds: the two sentences cannot be true simultaneously in the same situation. The Law of the Excluded Middle however does not hold: it is very well possible that John is neither friendly nor unfriendly. Horn (1989) analyzes these predicates as so-called scalar predicates, which denote a scale from very unfriendly to very friendly. *Unfriendly* then denotes a particular part of this scale, just like *friendly*. However, the two do not meet[58].

Apparently, Aristotelian logic contains two different kinds of negation: *Contradictory Negation* and *Contrary Negation*.

(32)   a.   Contradictory Negation: obeys LC and LEM
       b.   Contrary Negation: only obeys LC

As the definitions in (26)-(28) hold for both kinds of negation, it is predicted that negative adjectives can also license NPI's in their licensing domain. This prediction is born out.

(33)   *Un*aware of <u>any</u> dangers, he went on vacation[59]

---

[58] Apart from negative adjectives, it is possible in Dutch to put a negative prefix *on-* on some nouns (ding – *on*ding 'thing - unthing'). However, this phenomenon is not productive: it can only apply to some nouns. Moreover, it only gives rise to specialized meanings. *On*ding 'unthing' refers to a thing, that does not work as it should work, e.g. a car that is almost always breaks down.
[59] Cf. Den Dikken (2002) for more examples in Dutch.

3.1.4   Concluding remarks

In this section I developed a working definition for negative elements that will be used throughout the rest of the book. The definitions are based on the selection of four different types of negative elements. The reason for this selection of negative elements is that it is known of all these negative elements that they may give rise to unexpected phenomena with respect to multiple interpretation. These effects, especially Negative Concord, will form the core of this study.

3.2   *Sentential negation and the Jespersen Cycle*

In this section I describe the different ways that languages express sentential negation. First I explain the notion of sentential negation as opposed to constituent negation; second I provide a brief overview of the universal differences in expressing negation, and then I describe one particular strategy of expressing negation (by means of negative particles and by means of negative affixes). Finally I will describe the so-called Jespersen Cycle, which describes the cyclic diachronic change of negative particles and I show that this diachronic development can be used as a typological instrument.

3.2.1 Sentential negation

The definitions for the properties of negative contexts as provided in the previous section apply to both negative constituents and sentential negation. Given the fact that negation has been related to the introduction of an anti-veridical operator, the difference between sentential and constituent negation reduces to the difference in scope of the negative operator. If the entire proposition falls under the scope of the negative operator, the negation yields sentential negation. If the negation only applies to a particular constituent, there is no sentential negation, but only constituent negation. The distinction between sentential and constituent negation can be very subtle in some cases. Moreover, in some cases the distinction between sentential and constituent negation depends on whether sentential negation is defined in syntactic or in a semantic way. Klima (1964), following Jespersen (1917), introduces a tradition in which sentential negation is considered to be a syntactic phenomenon whereas Jackendoff (1969) initiates a line of thinking in which sentential negation is a semantic notion.

The distinction between sentential and constituent negation goes back to Klima (1964) who developed three different tests to distinguish between these two types of negation.
Klima shows that only sentential negation triggers the occurrence of the negative particle *either* in English (34). Otherwise the second clause cannot be modified by *either* but only by *too*.

(34)   a.   Bill drives a car and John did too/*either
        b.   Bill does*n't* drive a car and John *too/either
        c.   *Not* long ago Bill drove a car and John did too/*either

A second test Klima developed is the *not even* test (35). *Not even* tags are only possible in the case of sentential negation, not in the case of constituent negation.

(35)   a.   *Bill drives a car, *not* even a Fiat 500
        b.   Bill does*n't* drive car, *not* even a Fiat 500
        c.   *Not* long ago Bill drove a car, not even a Fiat 500

Third, Klima presents a test using positive question tags (36). Only sentential negation allows a positive question tag. In the case of mere constituent negation a positive tag is not allowed.

(36)   a.   *Bill drives a car, does he?
        b.   Bill does*n't* drive a car, does he?
        c.   *Not* long ago Bill drove a car, did he?

Note that the tests for sentential negation are not restricted to the occurrence of a negative marker like *not* or *n't*. The observation also holds for negative quantifiers, negative adverbs and semi-negatives like *seldom* or *hardly*.

(37)   a.   *Nobody* likes Mary, *not* even John
        b.   John *never* dates a girl, *not* even Mary
        c.   Mary *seldom* dates a guy, *not* even John

Klima shows that strong (real) and weak (semi-) negative elements can be distinguished by means of coordination with a *neither* phrase.

(38)   a.   Bill will {not/never} drive a care and neither will John
        b.   *Bill will {seldom/rarely} drive a car and neither will John

However all these tests are not sufficient and sometimes give rise to conflicting results. Ross (1973)[60] shows examples in which negative quantifiers in object position trigger negative question tags, but negative quantifiers in subject position do not (39). Jackendoff (1969, 1972) also shows examples that form counterarguments to Klima's tests.

(39)   a.   *Nobody* saw John, did(*n't*) they?
        b.   John saw *nobody*, did*(*n't*) he?

---

[60] Cited in Horn 1989: 185.

Hence new tests are needed. Ross (1973) and Culicover (1981) introduce a test that uses negative parentheticals. Only sentential negation allows for a negative parenthetical: constituent negation does not allow for it.

(40) a. It is*n't* possible, I do*n't* think, to solve this problem
      b. *It is impossible, I do*n't* think, to solve this problem.

Another test follows from the conclusions in the previous section. As we saw, negative elements license NPI's. Hence the fact that sentential negation licenses NPI's can form the basis of a new test. But there are three requirements for such a test: (i) constituent negation also licenses NPI's. Hence if the NPI is no longer licensed because it is part of a constituent other than the constituent that contains the negation, it is not a case of sentential negation (41);

(41) a. Bill did*n't* drive any car
      b. **Not* long ago Bill drove any car

(ii) the negation must be the licenser of the NPI. As NPI's can also be licensed by some non-negative contexts, it should be the negation that licenses the NPI. This can be checked by removing the negation: the sentence containing the NPI should then no longer be well-formed; (iii) a third requirement of this test is that it is only valid if the NPI's is licensed under c-command at surface structure. Hence, even in the case of sentential negation, the NPI cannot be included at any position.[61]

(42) (*Any) people did*n't* show up.

A similar test follows from the fact that negation always has scope over universal quantifiers when the universal is preceded by the negation, whereas constituent negation does not have any negative scope over universals (unless the universal is part of the negative constituent). So if a universal quantifier at any position in the sentence preceded by the negation falls under the scope of the negation, the negation is sentential. If that is not the case, the sentence contains a constituent negation.

(43) a. Last year Bill did*n't* always drive a car[62]
          $\neg > \forall$
      b. *Not* long ago Bill always drove a car
          $^*\neg > \forall$

---

[61] NPI verbs, such as Dutch *hoeven* 'need', are excluded form this requirement, since they need not be c-commanded at surface structure: The following sentence is grammatical:
    Jan hoeft niet naar school te gaan
    John needs not to school to go
    'John does not need to go to school'
[62] '>' reads as *scopes over*.

Still it remains unclear what is exactly meant by sentential negation. A sentence such as (44) can be regarded as sentential negation, since the predicate is negative, but the negation does not outscope the existential subject.

(44)   Some people did*n't* show up

Examples such as (44) have in fact led to a debate about what sentential negation really is: in the tradition of Jespersen (1917) and Klima (1964), sentential negation is clause based and marked on the finite verb. Seuren (1969) and Jackendoff (1969) argue that sentential negation is not a syntactic notion but a semantic notion: sentential negation of a proposition *p* means that the proposition can be paraphrased by 'it is not the case that *p*'. This distinction is illustrated in (45).

(45)   a.   *Not* many of us wanted the war[63]
        b.   Many of us did*n't* want the war

According to Jespersen only the latter example exhibits sentential negation; according to Jackendoff only the former does. However, Jackendoff's test in terms of negative paraphrases leads to other problems, e.g. neg-raising[64]:

(46)   a.   I do*n't* think that John will arrive tomorrow
        b.   It is *not* the case that I think that John will arrive tomorrow
        c.   I think that it is *not* the case that John will arrive tomorrow

The meaning of (46)a is rather (46)c than (46)b. Hence in Jackendoff's line of reasoning (46)a would not exhibit sentential negation, whereas within the syntactic approach (46)a would be analysed as sentential negation. Hence the usage of different tests may give rise to conflicting results.

Note that the fact that some of the diagnostics lead to conflicting results depends on the fact that Klima's tests and Jackendoff's test are diagnostics for different notions: Klima's test are designed to investigate whether a verb is marked for negation, whereas Jackendoff's test are meant to indicate whether the entire proposition is under the scope of negation. Hence the correctness of diagnostics for sentential negation depends on a theoretical definition of the notion of sentential negation: is the notion defined in syntactic or semantic terms?

I will address the question whether sentential negation should be captured in terms of syntax or semantics in chapter 6-8, where I will argue that negation is applied in the derivation after *v*P (i.e. the smallest domain containing all propositional arguments). However, as syntax operations can take place after Merge with negation, new material

---

[63] Example after Jespersen (1917):44, cited in Horn (1989):186.
[64] Note that the term 'neg-raising' is ambiguous in the literature. It can refer both to the fact that negation may scope over the entire proposition, although the negative operator at surface structure is dominated by other elements and to the phenomenon that is discussed here.

can be included such as adverbs that are not under the scope of negation (47)a or (existential) quantifiers moving out of vP to a higher position in the clause(47)b.

(47)　a.　John probably does*n't* go to school
　　　　　Probably $> \neg$
　　　b.　Somebody does*n't* go to school
　　　　　$\exists > \neg$

Assuming that the scopal order with respect to negation is read off at surface structure, this explains why sentences that are syntactically negative do not give rise to '*it is not the case that …*' paraphrases. Hence the difference between the syntactic and semantic version of sentential negation can be reduced to the fact that negation is merged in a low position after which other syntactic operators can take place.
In the rest of this book I will refer to sentential negation when a *v*P is dominated by a negative operator. However, this does not rule out Jackendoff's approach in terms of semantics: it only captures a different notion, namely whether negation still dominates all material at LF.

The next subsection will deal with typological differences in the way of expressing sentential negation. One particular strategy of expressing sentential negation, by means of negative markers, will form the central topic in this study.

3.2.2　Ways of expressing sentential negation

Languages exhibit different ways of expressing (sentential) negation. However, the number of these different ways is restricted. Three different kinds of languages can be distinguished: languages that have special verbs that deny a sentence like Evenki (spoken in Siberia), or languages, like Tongan (Polynesian), with negative verbs that take an entire clause as their complement.

(48)　a.　Bi ∂-∂-w dukuwūn-ma duku-ra　　　　　　　　Evenki
　　　　　I neg-PAST-1SG letter-OBJ write-PART
　　　　　'I didn't write a letter'
　　　b.　Na'e 'ikai [CP ke 'alu 'a Siale]　　　　　　　　Tongan
　　　　　ASP neg [ASP go ABS Charlie]
　　　　　'Charlie didn't go'[65]

The third strategy uses negative particles or negative affixes (either prefixes, suffixes or infixes) to express sentential negation. In this study I will restrict myself to the latter category, excluding the more 'exotic' varieties as in (48)[66,67]. In several

---

[65] Data from Payne (1985), cited in Zanuttini (2001): 513.
[66] Zanuttini distinguishes four different strategies to express negation: the Evenki and Tongan types, languages that express negation by means of a negative particle, and languages that have a negative

languages negative particles or affixes can express sentential negation by themselves (49), e.g. the Czech negative prefix *ne-*, the Italian negative particle *non* or the German negative adverb *nicht*. In other cases we find obligatory combinations of negative particles/affixes (50), such as Negative Doubling[68] in Afrikaans, or the combination of affix/particles and adverbs, as in standard French.

(49)   a.   Milan moc *ne*jedl   Czech
            Milan much neg.ate
            'Milan hasn't eaten much'
       b.   Gianni *non* ha telefonato   Italian
            Gianni neg has called
            'Gianni hasn't called'
       c.   Hans hat *nicht* gegessen   German
            Hans has neg eaten
            'Hans hasn't eaten'

(50)   a.   Die voorbereiding neem *nie* lank *nie*   Afrikaans
            The preparation takes neg long neg
            'The preparation doesn't take long'
       b.   Jean *ne* mange *pas* beaucoup   St. French
            Jean neg eats neg much
            'Jean doesn't eat much'

In all strategies, negative particles or affixes mark the presence of a negation. Hence I will refer to these elements as negative markers. In chapter 4 I will show which variety with respect to the kinds of negative markers has been found in Dutch; in chapter 5, I will take a series of other languages into account and explore the range of variation in those languages. In chapter 6 I provide a syntactic account of what constitutes the different kinds of negative markers.

3.2.3 The Jespersen Cycle

Languages do not only differ cross-linguistically in the way they express sentential negation; languages also vary diachronically. The Danish grammarian and philosopher Otto Jespersen (1917) observed a general tendency in the expression of negation in various languages:

---

affix. However, I will show that many negative particles have to be reanalyzed as negative affixes. In chapter 6-8 I will provide a new division between the different substrategies of the particle/affix type.

[67] Zanuttini analyses the examples in (48) as negative verbs: however, it is conceivable to think of these negative verbs as zero verbs with negative inflection. In that case, these examples fit nicely in the class of languages that express sentential negation by means of a negative affix.

[68] Cf Den Besten (1989). See also section 3.3.3. Note that Den Besten's notion of Negative Doubling originally did not apply to Afrikaans, because the second *nie* 'neg' does not occupy any position in the middle field. However, Van der Wouden's reinterpretation of this notion (see also 3.3.3) makes it applicable to Afrikaans.

> The history of negative expressions in various languages makes us witness the following curious fluctuation; the original negative adverb is first weakened, then found insufficient and therefore strengthened, generally through some additional word, and in its turn may be felt as the negative proper and may then in course of time be subject to the same development as the original word.[69]

Jespersen supports this claim by a number of examples from different languages in which indeed such a development can be found. English diachronically shows a rich variety of different patterns to express negation. In Old English, instances of a sentence-initial particle *no* have been found in the epic Beowulf, which is said to reflect the oldest versions of English (Van Kemenade 1999, 2000a-b), probably from the 7th or 8th century (51).[70]

(51)   *No* ic me an herewæsmun hnagran talige, guÞgeweorca, Þonne Grencel hine[71]
         Neg I me in less battle-power count, fighting-acts, than Grendel him
         'I don't count my self less than Grendel in battle power, fighting acts'

This way of expressing negation is rather rare in this text. More common is using a weaker negative marker *ne*, capable of attaching to the finite verb in (52), in a preverbal position. Note that this sentence also contains an NPI *ænige Þinga*, a common strategy in languages expressing negation by means of a weak phonological marker (see chapter 6 for an analysis in detail). Furthermore, Jespersen (1917) argues that the incorporation in the negative marker *ne* as in *nolde* ('neg wanted') was first restricted to a class of auxiliaries, such as forms of *to be*, *to have*, or *will*.

(52)   *Nolde* eorla hleo ænige Þinga pone Þwealcuman cwicne forlætan[72]
         Neg-wanted nobles protector some thing the.murderer alive free
         'The protector of the nobles didn't want at all to free the murderer alive'

Old English underwent part of the Jespersen Cycle by changing the phonological strong form *no* in the weaker *ne*. Support for such an analysis could come from possible co-occurrences of the two negative markers in the same clause. Sporadically these examples can be found in Beowulf.

(53)   *No* ∂u ymb mines *ne* Þearft // lices feorme lenge sorgian
         Neg you about mine neg needs body's burry long worried
         'Then you don't need to worry long about burying my body'

Apparently the negative marker *ne* became too weak to occur entirely by itself and given Jespersen's observation, one would expect to find occurrences of a second

---

[69] Cf. Jespersen (1917): 4.
[70] The English examples have been taken from Van Kemenade (2000b) and have been checked with the original texts.
[71] Beowulf: 677.
[72] Beowulf.791.

negative element to express negation. Indeed these examples show up in 11th and 12th century English in many different forms: *na, nauht* or *noht*. These elements have been analysed as contracted forms of Old English *nawith* (*no thing*), but the weaker form *na* can also be analysed as a weaker form of *no*. *Nawith* has probably been derived from *ne with*.

(54)   *Ne* het he us *na* leornian heofonas te make[73]   Late Old English (11th)
       Neg called he us neg learn heavens to make
       'He didn't order us to make heavens'

(55)   Þis *ne* habbe ic *nauht* ofearned[74]   Early Middle English (12th)
       This neg have I neg deserved
       'I haven't deserved this'

In these sentences, in which the co-occurrence of both negative markers is obligatory, *naugt* takes over the role as carrier of negation and becomes the main negative marker, resulting in the loss of *ne*. 14th Century English hardly shows any examples of the preverbal negative marker and *not* (in any of its forms) is responsible for negation.

(56)   He yaf *nat* of that text a pulled hen[75]
       He gave not of that text a pulled hen
       'He didn't give a thing about that text'

Now the circle that started with single *no* is complete. Sentential negation can be expressed by means of a single negative element *not*. This pattern can still be found in current English sentences such as (57).

(57)   I am *not* ill

However, the cycle continues and in the 15th century *do*-support enters English and negative expressions with a DO auxiliary become standard. In these sentences the negative marker attaches to the auxiliary *dyd* (otherwise it would remain in situ yielding *dyd I not*) and yields the complex form *dyd-not* (or *have-not*).

(58)   a.   Dyd *not* I send unto yow one Mowntayne …[76]
            'Didn't I send you a Mowntayne …'
       b.   Have *not* I chosen you twelve

Later on in these cases *not* can be reduced to the phonological weaker *n't* as is available in Standard English, often followed by a so-called *any-term*. And two strategies for negation are available (either by using *n't* or by using *not*[77]).

---

[73] Ælfric Lives of Saints.XVI.127.
[74] Vices and Virtues 7.9.
[75] Chaucer, Canterbury Tales, General Prologue, 177-78.
[76] Mowntayne.210.

(59)   a.   I did*n't* move to England
             I did *not* move to England[78]
       b.   I didn't do anything
             I did *not* do anything

The reduced form *n't* is the standard way of expressing negation in colloquial English and in fact has become the obligatory way in African American English. If it is indeed the case that *n't* is the weaker form of *not* and *n't* is taking over the role of *not*, similar to the change from *no* into *ne* in Old English, possible co-occurrences of *n't* and *not* are predicted, comparable to the example in (53). This prediction is born out. In African American English (but also in other varieties of English), the negative sentence (often negative questions) can often have an additional *not* without reversing the sentence's interpretation.

(60)   a.   Ca*n't* you *not* find an answer here? Contact me![79]
       b.   You do*n't not* have to rent or purchase expensive test special use test equipment
       c.   No, you do*n't not* have the right to talk about 'we' if you think that 'we' includes 'me'.

On the basis of English we might describe the Jespersen Cycle in the following way:

---

[77] The increasing preference of *n't* over *not* in colloquial use is illustrated by the use of *not* contractions of American presidents from Kennedy to Bush. While Kennedy and Nixon still used the uncontracted form *not* in the majority of cases (during public debates), Bush Sr. and Clinton used this form in only in 14-17% of all cases (Yaeger-Dror & Hall-Lew (2002)).

[78] The choice between *n't* and *not* may lead to interpretation differences as *n't* fails to acquire any stress, contrary to *not*.

[79] All these examples (there are hundreds) have been found on the internet and have been checked with native speakers.

(61)   The Jespersen Cycle

Phase I: Negation is only expressed by a single negative marker that is attached to the finite verb.

Phase II: The negative marker that is attached to the finite verb becomes phonologically too weak to express negation by itself and a second negative adverb becomes optionally available.

Phase III: Sentential negation is obligatory expressed by the negative marker that is attached to the finite verb and the adverbial negative marker.

Phase IV: The negative adverb is the obligatory marker for negation and the use of the negative marker that is attached to the finite verb becomes optional.

Phase V: The negative adverb is the only available negative marker. The negative marker that is attached to the finite verb is no longer available.

Phase VI: The negative marker is available in two forms: it can appear either as negative adverb or as a negative marker that is attached on the finite verb, though sometimes simultaneously.

Phase VII=I   Negation is only expressed by a single negative marker that is attached to the finite verb.

It remains a question however whether this development holds for every language using particles to express negation. Jespersen shows examples from Latin (62) and French and Scandinavian languages that show that these languages underwent (parts of) the same process. Also Dutch, I will show in the next chapter, changed from Phase I/II to Phase V (through Phase III-IV).

In Latin negation was first expressed by a single element *ne*, followed by a strengthening element *oenum*, from which the later *non* is derived. This *non* expresses the negation on its own (without *ne*) and finally occupies the original position of *ne* in the sentence.

(62)   a.   *Ne* dico
              neg say.1SG
        b.   Dico *ne oenum*
              say-1SG neg a-thing
        c.   Dico *non*
              Say.1SG
        d.   *Non* dico
              neg say-1SG
              'I don't say (anything)'

The cycled continued in French, often regarded as a prototypical language with respect to the *Jespersen Cycle*, and examples can be found in all stages.

(63)   a.   Je *ne* di   Old French
            I neg say
       b.   Je *ne* dis *pas*   Modern French
            I neg say neg
       c.   Je dis *pas*   Colloquial French
            I say neg

French negation developed from the clitical element *ne* via the complex negative form *ne ... pas* to the single adverbial element *pas*. In French a second development co-occurred with the Jespersen Cycle: positive elements became reanalysed as negative elements. For example *pas* used to mean 'step', but got reinterpreted as the negative marker. The French word for 'n-body' *personne* used to mean 'person' and the French word for 'n-ever' (*jamais*) originally meant 'already more' (Latin: *iam magis*).

Given the similarities between English, Latin and French, it is safe to conclude that the diachronic change with respect to the expression of sentential negation is not a specific property of English but it can be generalised to other languages as well.
Although it has not yet been proven that this cycle applies to all languages using particles or suffixes to express negation, it is possible however to link all these languages to what I call a *Jespersen Phase*, i.e. their alleged position in the cycle. This typological tool makes it possible to link the properties of each different phase of the Jespersen Cycle with other properties of a language with respect to negation, such as the phenomena that I will discuss in the rest of this chapter. In the other chapters I will show that the relation between the Jespersen Phase and the interpretation of multiple negation forms a major key to a better understanding of Negative Concord.

3.3   The interpretation of multiple negation

In this section I discuss the possible semantic and pragmatic effects that co-occur with the interpretation of multiple negative elements. Contrary to formal logical systems, it is not generally the case that two negations cancel each other out and yield an affirmation. Van der Wouden (1994a) describes four different classes of multiple negation. In this section I discuss these four classes and show that this classification can be reduced to a binary classification: application of the Law of Double Negation (LDN) vs. no application of LDN.
The four classes of multiple negation that Van der Wouden distinguishes are:

- **Double Negation**: Two negative elements cancel each other out and yield an affirmative.

- **Weakening Negation**: One negative element weakens the negation of another negative element. The result is somewhere between a positive and a negative.
- **Negative Concord**: two or more negative elements yield one negation in the semantics.
- **Emphatic Negation**: One negative element enforces another negative element. The result is stronger than it would be the case with just the second negative element.

I show in the next subsections that both Double Negation and Weakening Negation are the result of the same semantic mechanism (application of the Law of Double Negation) and that their different interpretations follow from the difference in their pragmatics. Moreover I will argue that Negative Concord and Emphatic Negation are two phenomena that belong to the same class: both seem to violate LDN. However, Emphatic Negation is not a subclass of Negative Concord or vice versa. They show similar behaviour, but I will argue that they are the results of different syntactic/semantic mechanisms.

3.3.1   Double Negation

Double Negation (DN) refers to cancellation of two negative terms as in formal logic. According to the Law of Double Negation (LDN) two negations yield an affirmative:

(64)   *Law of Double Negation*:
        $\neg\neg p \leftrightarrow p$

(65)   Mary will *not not* show up $\leftrightarrow$ Mary will show up

However, Double Negation in natural language is extremely rare[80]. Not only is it hard to give rise to DN readings in Negative Concord languages (see the subsection 3.3.3), but also in languages that lack Negative Concord, such as Standard Dutch, Standard German, or the Scandinavian languages, constructions with two negative elements are hard to find. Yet it is not impossible to construct or interpret these sentences, and (given the working definition of negative elements), which includes so-called semi-negatives, the examples become much more natural (66)-(67). We will see that it is only hard to find contexts in which these expressions become natural.

(66)   Few people did*n't* show up

---

[80] Double Negation occurs quite frequently in natural languages if the two negations are in different clauses. However, this is not strict Double Negation as two propositions are negated once, and no proposition is negated twice.

(67)   a.   *Nobody* will *not* be touched by this movie
        $\neg\exists$x.[**Person'**(x) & $\neg$**Will_be_touched_by_the_movie'**(x)] $\leftrightarrow$
        $\forall$[**Person'**(x) $\rightarrow$ **Will_be_touched_by_the_movie'**(x)]
        'Everybody will be touched by this movie'

       b.   We must *not* allow *nothing*
        $\Box\neg\neg\exists$y.[**Thing'**(y) & **Allow'**(**we**, y)] $\leftrightarrow$
        $\Box\exists$y.[**Thing'**(y) & **Allow'**(**we**, y)]
        'We must allow something'

Whereas the example in (66) does not yield problems for interpretation, the ones in (67) are harder to interpret. The interpretation in the first sentence is that 'nobody remains untouched by this movie', in the second sentence that 'we must allow something'. In these cases the interpretation follows immediately from the Law of Double Negation, and the rules for quantifiers and modal operators.

The reason why these sentences seem unnatural is because of their usage conditions: a sentence containing two negations (instead of the equivalent sentence without a negation) will only be expressed if there is a necessity to do so. In the case that a speaker wants to utter 'everybody will be touched by this movie', he will use this expression rather than a complex sentence containing two negations, obeying Grice's *maxim of manner*[81] ('be brief, don't use unnecessary prolixity'). When the context is such that a speaker wants to deny a negative claim made by another speaker, the Double Negation construction becomes more acceptable.

(68)   a.   A. I am told that *La vita è bella* is a horrible movie. I can't imagine that anyone will be touched by it.
          B. How can you say that? It was beautiful. Nobody will not be touched by this movie.

       b.   A. I think we need to be very strict. I think we must allow nothing
          B. No, you can't do that. That's too strict. We must not allow nothing

It follows from (68) that Double Negation becomes natural in the proper context, namely when it is a response to a previous statement containing a negation. This observation is in line with observations by Seuren (1976) and Van der Sandt (1989) who claim that denial is heavily restricted with respect to presuppositions.

Horn (1989) also shows that the pragmatic conditions of denial are closely related to the presupposition of the proposition to be denied. In the case of Double Negation, pragmatics requires a presupposition, which is doubted by one speaker, hence yielding a contrary presupposition, which on its turn will be denied by the other speaker. Given these highly infrequent usage conditions (cf. Horn 1989 for an overview on the literature), clause-internal Double Negation expressions are expected to be rare in spontaneous speech.

---

[81] Cf. Grice (1975).

Hence I conclude that Double Negation is available univerally. Clause-internal Double Negation is extremely rare, but I account for this due to its pragmatic restrictions and not to any syntactic or semantic unavailability of Double Negation. This is illustrated by the fact that even in Negative Concord languages, constructions yielding Double Negation readings are available (see chapter 8.2.3).

3.3.2   Weakening Negation

The second category Van der Wouden (1994a) distinguishes is called Weakening Negation. Weakening Negation (WN) is described as the occurrence of two negative elements, such that their common negative reading still remains a single negative, but a weaker one. An example is a sentence as in (69).

(69)   John is *not un*friendly

In a context in which some ask whether John is a friendly guy, (69) gets a reading that John is not a nasty guy, but he is not friendly either. This possibility is actually predicted by the laws of formal logic: The predicate *friendly* is a scalar predicate (cf. Horn 1989) that forms a spectrum from very unfriendly to very friendly.

(70)   Scalar predicates: *friendly*

very unfriendly	unfriendly	Neither friendly nor unfriendly	friendly	very friendly

As one can see, *unfriendly* denotes the area between the dark area *very unfriendly* and the grey area *neither friendly nor unfriendly*. As the Law of the Excluded Middle does not hold for *un-*[82], the combination of the contradictory negation *not* and the contrary negation *un-* denotes every area except for *unfriendly*.

(71)   ¬~**friendly**(**john**)[83]

Then depending on the context, it becomes clear for the hearer what is meant by the denial of the negative predicate:

(72)   a.   John is *not un*friendly. He is awful.
         b.   John is *not un*friendly. He is*n't* very friendly either.
         c.   John is *not un*friendly. In fact, he is very friendly.
         d.   A: John is *un*friendly. B: No, John is *not un*friendly. He is friendly.

---

[82] It is not true that every instance of *un-* yields a contrary negation. *(Un)*married for example is a binary predicate. However, the lack of a scale is due to the semantics of *married*, and not of *un-*.
[83] Contrary negation is denoted by ~.

In principle every area in (70) that is not denoted by *unfriendly* can be intended by 'not unfriendly'. The question is however why the reading *neither friendly nor unfriendly* is the most salient reading of (69). This is accounted for by Horn's (1990, 1991) *Division of Pragmatic Labour*:

> The use of a longer, marked expression in lieu of a shorter expression involving less effort on the part of the speaker tends to signal that the speaker was not in a position to employ the simpler version felicitously. (Cited in Van der Wouden 1994a:123)

Whereas the readings denoted by the areas of *very friendly, friendly* and *very unfriendly* can be expressed without using any additional negation at all, this is not possible for the middle area. Hence according to this principle, there should be an extra reason to expect the first three readings in (72), but the fourth reading cannot be uttered felicitously in a shorter way. Therefore this is the unmarked reading for the so-called *litotes*. It is the result of formal semantics, obeying the laws of negation, in combination with the *Division of Pragmatic Labour* that excludes several possible readings in the standard situation.

3.3.3   Negative Concord

In this subsection I will provide an overview of Negative Concord (NC) phenomena in natural language. NC is defined in the introduction of this section as 'two or more negative elements yielding one semantic negation', following Labov's (1972) observation. NC has been a widely studied phenomenon, since it exhibits morpho-syntactic behaviour that should intuitively be ruled out by semantics. In chapters 6-8 I will thoroughly discuss previous analyses of the phenomenon and explain my own analysis in detail, but first I want to prepare the ground by investigating which kinds of NC phenomena one may expect.

Van der Wouden & Zwarts (1993), following and expanding on Den Besten (1986, 1989), distinguish three different kinds of NC: Negative Spread (NS), Negative Doubling (ND) and a combination of both Negative Spread and Doubling (NSD). Van der Wouden (1994a) defines them as follows:

(73)   **Negative Spread**: the negative feature is 'spread' or distributed over any number of indefinite expressions within its scope.

(74)   **Negative Doubling**: a distinguished negative element shows up in sentences that contain a negative expression.

(75)   **Negative Spread and Doubling**: a distinguished negative element shows up in sentences that contain more than one negative expression.

In Negative Spread construction (76) two indefinite expressions are morpho-phonologically marked for negation. In Negative Doubling constructions a negative quantifier and a negative marker together yield the semantic negation (77). When the

two constructions are combined, we find multiple n-words in combination with one
negative marker, still yielding only one semantic negation (78).

(76) a. *Nessuno* ha telefonato a *nessuno*   Italian
          N-body has telephoned to n-body
          'Nobody called anybody'
      b. T ee *niemand niets* gezeid   West Flemish
          It has n-body n-thing said
          'Nobody said anything'

(77) a. Jean *ne* dit *rien*   French
          John neg says n-thing
          'John doesn't say anything'
      b. 'k *En* een *geen* geld   West Flemish
          I neg have no money
          'I don't have any money'
      c. Milan *ne*vidím *nikoho*   Czech
          Milan neg sees n-body.ACC
          'Milan doesn't see anybody'

(78) a. *Personne ne* mange *rien*   French
          N-body neg eats n-thing
          'Nobody eats anything'
      b. Valère *en* klaapt *nie* tegen *niemand*   West Flemish
          Valère neg talks n-ever against n-body
          Valère doesn't ever talk to anyone
      c. *Nikdo ne*dá *nikomu nic*   Czech
          N-body.NOM neg gives n-body.ACC n-thing.DAT
          'Nobody gives anything to anybody'

However the distinction between Negative Spread and Negative Doubling is
inadequate to distinguish different typological classes of Negative Concord
languages. Van der Wouden & Zwart's (1993) distinction suggests a tripartite
division of languages, namely (i) Negative Spread languages; (ii) Negative
Doubling languages; or (iii) languages with both Negative Spread and Negative
Doubling. However, this does not reflect what is found in natural languages.
There is no language that exhibits Negative Spread, but lacks a particular
negative element that accompanies n-words. French, West Flemish and NC
varieties of English all allow a negative marker to be involved in the NC
relation. Some languages however do not allow a combination of a negative
subject and a negative marker.
Negative Doubling languages are not found in natural language either: Afrikaans has
been reported to be a Negative Doubling language, since negative sentences
containing a negative marker *nie* or or n-word are (nowadays optionally) followed by
a sentence-final second negative marker *nie*. Hence expressions without an n-word
have obligatorily two *nie*'s whereas expressions with an n-word only have one.

(79) a. Ek het hom *nie* gesien *nie*[84]   Afrikaans
          I have him neg seen neg
          'I haven't seen him'
      b. Ek het hom *nooit* gesien *nie*
          I have him n-ever seen neg
          'I have never seen him'

However, Negative Spread also occurs in Afrikaans, although its frequency is rather low and it is said that these expressions may also yield an emphatic reading (Den Besten p.c.).

(80) Ek krijg *geen* hulp van *niemand nie*[85]   Afrikaans
      I get no help from n-body neg
      'I don't get any help from anybody'

It is uncertain that the alleged emphatic reading stems from the occurrence of more than one negation. The English translation is also emphatic though this sentence contains only one negation. The reason for this is that *to get* is a transitive verb that is only optionally overtly bi-transitive. The fact that no help is received already implies that no help is received from anyone. Therefore mentioning that one did not get any help from any person emphasises that no help has been received.

(81) $\neg\exists x[\textbf{help'}(x) \,\&\, \textbf{get'}(I, x)] \rightarrow \neg\exists x\exists y[\textbf{help'}(x) \,\&\, \textbf{person'}(y) \,\&\, \textbf{get''}(I, x, y)]$

The emphatic readings are thus simply a by-product of the argument structure in the sentence in relation to the content of the event. Not every example of Afrikaans NC is an instance of Negative Doubling and, just like the case of Negative Spread, no language has been found that exhibits only Negative Spread or Negative Doubling.

Typologically speaking, all NC languages exhibit therefore both Negative Spread and Negative Doubling. In all NC languages, multiple n-words can establish NC relations, and in all NC languages a separate negative element (the negative marker) is involved in the NC relation. Languages only differ with respect to whether a negative marker should always accompany n-words. In some languages (Slavic languages, Greek), this is the case, but in other languages (Spanish, Italian), it is related to the position of the n-word in the clause. If the n-word is occupying a preverbal position in languages like Spanish or Italian, the negative marker is no longer allowed, whereas the occurrence of an n-word in postverbal position requires the presence of a negative marker. This leads to the following subcategorisation of Negative Concord in Giannakidou's (1997, 2000) terms of Strict vs. Non-Strict Negative Concord.[86]

---

[84] Examples from Van der Wouden (1994a): 104.
[85] Examples from Donaldson 1993 (also cited in Van der Wouden (1994a)).
[86] Giannakidou does not restrict the classification of Negative Concord to these classes: In fact, she proposes a rich classification of Strict and Non-Strict NC languages, which can further be classified in languages that have a light or a heavy negative marker or both. She also takes examples of what seem

(82) a. **Strict Negative Concord**: N-words are not allowed to occur by
          themselves, but have to be accompanied by a single negative marker.
      b. **Non-Strict Negative Concord**: N-words are not allowed to occur by
          themselves, but should be accompanied by a single negative marker,
          except when the n-word is in a preverbal (subject) position. Then it
          may not co-occur with a negative marker.

Examples of these two instances are in (83) and (84).

(83) a. Milan *nikomu ne*volá.   Czech
          Milan n-body neg-call
          'Milan doesn't call anybody'
      b. *Ne*volá *nikdo*.
          Neg-calls n-body
          'Nobody is calling'
      c. *Nikdo ne*volá.
          N-body neg-calls
          'Nobody is calling'

(84) a. Gianni *(*non*) ha telefonato a *nessuno*   Italian
          Gianni neg has called to n-body
          'Gianni didn't call anybody'
      b. *(*Non*) ha telefonato *nessuno*
          Neg has called n-body
          'Nobody called'
      c. *Nessuno* (**non*) ha telefonato (a *nessuno*)
          N-body neg has called (to n-body)
          'Nobody called (anybody)'

In all of these examples the first negative element introduces the negation and the
other negative elements do not contribute a negation by themselves, but indicate that
their indefinite interpretation should fall under the scope of negation.

Negative Concord is clause-bounded. No negative element in a main clause can
establish a Negative Concord relation with an underlying negative element in a
subordinate clause. This yields only Double Negation readings.

(85) a   *Milan *ne*řiká, že vidí *nikoho*   Czech
          Milan neg-says that see.3SG.PERF n-body
          Milan doesn't say that he has seen anybody

---

to be NC constructions in non-NC languages as instances of Negative Concord whereas I will treat
these under the class of negative emphatics, which have a different nature than Negative Concord
constructions.

  b. *Gianni *non* ha detto che e arrivato *nessuno*   Italian
      Gianni neg has said that neg has arrived n-body
      'Gianni hasn't said that anybody has arrived'

The only phenomenon that is allowed to violate this constraint is so-called Paratactic Negation.

(86) **Paratactic Negation**: a semi-negative verb or preposition in a main clause can establish a Negative Concord relation with a negative element in a position in its complement.

Paratactic Negation (also known as expletive negation or resumptive negation) is known only to occur in contexts that give rise to negative implicature. These contexts are: (i) clauses depending on negatively connotated predicates (like *fear, hinder, forbid, doubt*, etc.); (ii) clauses dependent on comparatives and (iii) clauses depending on negative prepositions (like *before, unless or without*). Examples from French are in (87).

(87) a. J'ai peur qu'il (*ne*) vienne   French
          I am afraid that he neg comes.SUBJ
          'I am afraid that he comes'
      b. Il est autre que je (*ne*) croyais
          He is different than I neg believed.SUBJ
          'He is different than I thought'
      c. Il vient *sans personne*
          He comes without n-body
          'He comes without anybody'

Paratactic Negation does not only license negative elements in subordinate clauses, it may also license negative complementisers, such as Latin *ne* or Greek *mipos*.

(88) a. Timeo *ne* veniat[87]   Latin
          Fear.1SG neg.that comes.3SG
          'I fear that he comes'
      b. Fornamai *mipos* kano lathos   Greek
          Fear.1SG neg.that make.1SG error
          'I am afraid to make an error'

Crucial for any explanation for Paratactic Negation is whether the negative element indeed does not contribute to the negative semantics or not. Van der Wouden advocates the view that these negative elements in subordinate clauses act as Negative Polarity Items and do not contribute to the semantics at all, hence acting as an instance of Negative Concord.

---

[87] Data from Van der Wouden (1994a): 107-108.

This view is argued against by Portner & Zanuttini (2000) who show examples from the Italian dialect of Padua, which allows for Paratactic Negation in *Wh* and non-*Wh* exclamatives:

(89) a. Cossa (*no*) ghe dise-lo!   Paduan
          What neg him says-he
          'What things is he telling him'
      b. (*No*) ga-lo magnà tuto!
          Neg has-he eaten everything
          'He has eaten everything!'

The examples that include the negation are intended to show that the subject is really telling/eating everything, even the most unlikely things. When the negation is left out, the connotation with unlikely elements disappears. Hence the negation does contribute to the semantics of the sentence.

However, these exclamatives are no proper examples of Paratactic Negation as Paratactic Negation is a subcategory of Negative Concord, and the same effect can hold for non-Negative Concord languages, like Dutch or English, that allow for this kind of construction.

(90) a. Wat hij allemaal (*niet*) vertelt!   Dutch
          What he all neg tells
          'What things he is telling'
      b. Wat hij allemaal (*niet*) eet!   Dutch
          What he all neg eats
          'What things he is eating'

In this case the introduction of *niet* implies that the kind of things the subject talks about or eats is unexpected whereas the positive exclamative only refers to the amount of things that the subject generally tends to tell/eat.

From this it can be concluded that negation in exclamatives contributes to the semantics, but that these elements do not count as instances of Paratactic Negation as the phenomenon is not restricted to Negative Concord languages only. A proper explanation of the interpretation of negative exclamatives will be the subject of further research.

Paratactic Negation as in the definition in (86) is not comparable to this phenomenon. Moreover, as we saw it is restricted to the class of languages that exhibits also Strict or Non-Strict Negative Concord. Therefore the subdivision of Negative Concord languages is the following:

On the basis of my empirical research I will show (see chapter 4-5) that every Negative Concord language exhibits Paratactic Negation, to the extent that there is variation between languages, which elements may participate in a Paratactic Negation construction: whereas Latin accepts verbs expressing *doubt* to participate in NC relationships, French does not.

3.3.4 Emphatic Negation

In this subsection I will discuss the different occurrences of the final category of multiple negation as proposed by Van der Wouden: Emphatic Negation (EN). First I will give several examples, and I will provide a classification of different EN expressions. Then I will account for the distribution of EN expressions from different classes and finally I will sketch two possible strategies for an explanation of EN.

Examples of EN in Dutch are mostly found in idiolectical varieties whereby the single negative reading is emphatic. Although Van der Wouden treats it as a separate class, from a semantically point of view it should be regarded as a special subclass of NC. It is similar to other kinds of NC, since the cancellation of two negative elements against each other is ruled out.

(91) a. Hij heeft *nergens geen* zin in   Dutch
           He has n-where no lust in
           'He doesn't feel like anything at all'
      b. Hij gaat *nooit niet* naar school
           He goes n-ever neg to school
           'He never ever goes to school'
      c. Ik vind dat *niks niet* leuk
           I find that n-thing neg nice
           'I don't like it at all'

EN differs from standard NC in four ways. First, the negative reading is strengthened, whereas standard NC yields non-strengthened negative readings. Second, Emphatic Negation is subject to very strict locality conditions: Emphatic Negation can occur only if two negative elements are (almost) adjacent.

(92) a. Hij gaat *nooit niet* naar school   Dutch
           He goes n-ever neg to school
           'He never ever goes to school'
      b. *Nooit* gaat hij *niet* naar school
           N-ever goes he neg to school
           'He always goes to school'

(93) %*Niemand* vertelde mij (*gisteren) *niks*[88,89]   Dutch
      N-body told me (yesterday) n-thing
      'Nobody told me anything at all (yesterday)'

---

[88] The sentence with *gisteren* ('yesterday') included is not ungrammatical, but cannot yield the emphatic negative reading anymore. This sentence gets a Double Negation reading.
[89] The % symbol indicates that only for some speakers of Dutch this sentence is grammatical.

Third, Emphatic Negation is forbidden when the negative marker precedes an n-word or when the negative marker gets additional stress. Those constructions only yield a Double Negation reading.

(94) a. Hij gaat *niet nooit* naar school   Dutch
         He goes neg n-ever to school
         'He sometimes (=not never) goes to school'
      b. Hij gaat *nooit NIET* naar school
         He goes n-ever neg to school
         'He does never NOT go to school'

Fourth, EN is different from the other subclasses of NC because it only occurs in languages that do not exhibit standard NC (like Dutch or German varieties). Languages that exhibit standard NC lack EN.
Given these four differences between NC and EN, it follows that EN is a different phenomenon than NC. Hence an explanation for EN should be different from an account that explains any of the other NC instances[90]. In the rest of this book I will provide an analysis that accounts for Strict and Non-Strict Negative Concord and for Paratactic Negation. In the rest of this subsection I describe and discuss the different occurrences of EN.

The examples in (91) and (93) exhibit two different kinds of EN. In the first case (91) the two negative elements form one constituent and the emphatic negation is the result of the fact that the first negative element is modified by the second negative element. In all cases in (91) the second element may be removed without any loss of meaning except for the loss of the emphatic effects (95). Removal of first element leads to a different meaning or even unwellformedness (96).

(95) a. Hij heeft *nergens* zin in   Dutch
         He has n-where lust in
         'He doesn't feel like anything'
      b. Hij gaat *nooit* naar school
         He goes n-ever to school
         'He never goes to school'
      c. Ik vind sport *niks* leuk
         I find that n-thing nice
         'I don't like any kind of sport'

(96) a. *Hij heeft *geen* zin in   Dutch
         He has no lust in
         'He doesn't feel like anything at all'

---

[90] Emphatic Negation is also widely spread in English varieties. However, their distribution is freer and its occurrence is more frequent. I will show later that English is a language that substandardly allows for Negative Concord.

    b.   Hij gaat *niet* naar school
        He goes neg to school
        *'He never goes to school'
    c.   Ik vind sport *niet* leuk
        I find that n-thing neg nice
        *'I don't like any kind of sport'

As EN constructions of this class consist of a true negative element and a second enforcing negative element, it follows that it should be possible to remove the enforcing negative element without damaging grammaticality of the sentence. This is not always the case for the negative elements in the first position but is always possible for elements in the second position. In (95)a and (96)a it is *nergens* that has been modified by *geen*. In the b examples, both sentences are grammatical, but (95)b still has a temporal reading whereas as (96)b does not. The case in (95)c and (96)c is more complicated. At first sight *niks* seems to modify *niet,* as (96)c is more standard than (95)c, but (95)c is substandardly wellformed. The difference between (95)c and (96)c is that (95)c has a partitive reading in which any part of the DP *sport* is rejected whereas (96)c only refers to sports as a whole. Although the meaning difference is rather subtle, one can come up with contexts in which only one of the two sentences is salient.

(97)   a.   Context: *John has several hobbies: he likes to read, sing and cook,*
            but he doesn't like sports.
            Jan vindt sport {**niks/niet/*niks niet*} leuk
            John finds sport {n-thing/neg/nthing neg} nice
            'John doesn't like sports'
    b.   Context: *John has tried several sports: hockey, football, tennis, etc.,*
            but he didn't like them. He likes a whole lot of other things,
             but he doesn't like any kind of sport.
            Jan vindt sport {*niks/niet/niks niet*} leuk
            John finds sport {n-thing/neg/nthing neg} nice
            'John doesn't like (any) sports'

It follows from (97) that only in those cases in which the [*niks* DP] construction is allowed, the EN construction [*niks niet* DP] is allowed as well. This proves that also in these cases *niet* is the modifier of *niks* and not vice versa. Thus it can be concluded that in all cases the second negative element enforces the first.

The other class of EN is the construction in which two n-words yield two different constituents, occupying two different theta roles. These constructions are only accepted under adjacency. A good example of this class is (93). Other examples are the combination of a negative direct and a negative indirect object or a negative temporal quantifier in combination with a negative object (98). Empirical support for the two different classes of EN stems from the fact that in general speakers have more

problems with accepting examples of the latter class than examples of the former class.

(98)   a.   %Jan geeft *niemand niets*.   Dutch
            John gives n-body n-thing
            'John doesn't give anything to anybody at all'
       b.   %Jan heeft *nooit niemand* kwaad gedaan
            John has n-ever n-thing evil done
            'John never ever hurt anybody'

In these cases the negation of the second negative quantifier modifies the first negation. The quantificational properties of the second negative quantifier are not involved in the EN construction. Apparently what happens is that in EN constructions the negative part of the second negative element emphasises the negation of the first negative element. The non-negative part of the second negative element contributes in the standard compositional way to the semantics of the sentence:

(99)   LF: [[neg-Q] [(Q)]]

       SS: [[neg-Q] [neg (Q)]]

This explains the restriction in possible combinations of negative elements that yield EN readings. EN is only acceptable if the non-negative part of the second negative element can felicitously contribute to the semantics of the sentence. In the case of *niet* as a second negative element, it should always be possible, since *niet* contains only a negative operator and not any quantificational part[91]. The ban on EN constructions that start with *niet* is a consequence of the syntactic position of *niet*. I will show in chapter 6 that *niet* is a modified *v*P and negative quantifiers overtly scope over *niet*. Therefore a negative quantifier cannot follow *niet* unless *niet* yields constituent negation with the negative quantifier. This however yields Double Negation readings.

A similar analysis holds for *geen*. *Geen* consists of a negative part and a quantificational part that has to bind an NP. Hence the only EN construction of the first type consisting of *geen* has the form [neg-Q [*geen* NP]] under the condition that [neg-Q NP] is acceptable too. EN constructions of the second type are only acceptable under adjacency, whereby the first constituent is a negative quantifier and the second constituent is a [*geen* NP] construction. This explains immediately the ban on EN constructions of the form [*geen* NP [neg-Q]], since the NP blocks adjacency of the two negations.

---

[91] This is not necessarily true. It is possible to think about negative operators as quantifiers binding for example event or temporal variables (cf. Krifka 1989, Ramchand 2002). The exact semantic nature of negative operators will be discussed extensively in chapter 6-8.

The other instances of EN are combinations of two negative quantifiers. In those cases the negative part of the second negative quantifier enforces the negation of the first negative quantifier. As the remaining part of the second negative quantifier is not vacuous, these instances cannot exhibit any EN of the first class. The second negative element has to occupy an argument or an adverbial position in the clause due to the syntactic/semantic contribution of the non-negative part of the second negative quantifier. This explains the distribution of EN constructions consisting of two negative quantifiers: they are acceptable if and only if the non-negative part of the second negative quantifier can felicitously contribute to the semantics of the sentence without violating any syntactic or semantic constraint. Take the following examples:

(100) a. %Jan heeft *niemand nooit* geslagen   Dutch
           Jan has n-body n-ever hit
           'John never hit anybody (ever) at all'
       b. *Jan heeft *niemand niets* geslagen
           Jan has n-body n-thing hit
           'John never hit anybody at all'

In (100)a *nooit* is included as the second negative Quantifier. Its non-negative part says that the event did not *ever* take place, introducing a temporal variable that is scoped over by the first Negative Quantifier. In (100)b *niets* is introduced. Its non-negative part is the existential quantifier *iets* ('something/anything'), and this can only occupy an argument position. As the verb *slaan* ('to hit') only allows for two theta roles, the introduction of *niets* violates the theta-criterion. Hence, this sentence is ruled out.

To summarise, EN consists of two classes: Class I, in which the two negative elements form one constituent, where the second negative element does not contribute anything to the semantics of the sentence except for the emphasis on the first negative element; and Class II, in which two different negative elements both form a negative constituent, but the negation of the second negative constituent only emphasises the negation of the first negative constituent. The non-negative part of the second negative constituent contributes to the semantics of the sentence in the standard compositional fashion.

The question is now: how can this phenomenon be explained. I will discuss two possible strategies: (i) one can analyse EN as idiomatic expressions, which are part of the lexicon; or (ii) EN can be analysed by means of a morpho-syntactic or semantic analysis in which the negative feature of the second element agrees with or melts into the negation of the first element.

The first strategy seems attractive: the set of possible EN constructions is limited as there are only 6 different negative elements. Especially if one takes class I examples (ending in *niet* or *geen*), a lexical account is plausible given the small number of these constructions. The introduction of these lexical items can thus be explained from the

fact that they are remnants of earlier stages of Dutch. The fact that older varieties of Dutch exhibited NC is a strong argument in favour of this lexical strategy as it is a common property of idiomatic expressions that they stem from earlier stages of the language. The fact that some EN instances consist of more than one constituent is not a counterargument, as idiomatic expressions in general consist of more than one constituent, which are said to be lexically stored as one unit. Hence EN can be thought of as a subclass of the set of idiomatic expressions, which stems from stages of Dutch that exhibited NC. This also explains the semantic constraints as discussed above. Because general constraints like the theta criterion obviously held in older forms of Dutch, it follows immediately why only a subset of the set of possible combinations of two negative elements can be stored lexically: these were the only acceptable forms in these older stages of Dutch.

The only problem with an explanation in lexical terms is that lexical accounts are to a certain extent theoretical escape hatches. Although it may seem plausible that these EN constructions are lexically stored, there is no direct evidence for it. The plausibility for the lexical analysis basically comes from the lack of a morpho-syntactic (or semantic) account. Therefore the following question is legitimate: can we come up with a morpho-syntactic account for these EN constructions?

Barbiers and Bennis (2003) discuss a similar phenomenon, namely the difference between weak and strong reflexives. Strong reflexives are reflexives that are followed by a second element (*zelf* 'self' or *eigen* 'own' in Dutch). Not all combinations are possible. In Dutch dialects have been found in which *zijn eigen* 'his own' is acceptable, but *hem eigen* 'him own' is always ruled out whereas *hem zelf* 'him self' and *zijn zelf* 'his self' are both found in Dutch dialects. Barbiers and Bennis argue that this is due to feature agreement under spec head configuration. As long as there is one feature shared by the two elements, the strong reflexive form is born out. *Eigen* 'own' consists of one feature [poss] and therefore it can only be combined with *zijn* 'his' ([3sg],[poss]) and not with *hem* 'him' ([3sg]). The underlying feature representation of *zelf* 'self'[92] is [3sg],[poss] and hence it can agree both with *hem* 'him' and *zijn* 'his'.

A similar explanation can be formulated for the case for the EN constructions. Negative Quantifiers consist of a [neg] and a [Q] feature, and *niet* only consists of a [neg] feature. Hence EN is the result of agreement of the two [neg] features resulting in a stronger negation. Supporting evidence for this analysis stems from English, in which emphatic negations are not expressed by means of agreement of [neg] features but agreement of [Q] features.

(101)   He *never*[neg],[Q] ever[Q] woke up
        'He never woke up at all'

However, several questions remain open. What is the domain in which this feature agreement may take place? It cannot be under standard locality restrictions, as

---

[92] Cf. Postma (1995) for an analysis of SELF as a possessive element.

(almost) adjacency is a constraint to these EN constructions. The domain cannot be a spec head configuration (within the same XP) either, since we saw that some examples of EN constructions (Class II) consisted of two constituents (thus agreement under spec head agreement is ruled out)[93]. What constitutes the loss of the semantic content of the second negative feature? In isolation all these negative elements introduce a negation, and they can all participate in Double Negation relations in the case of multiple negation. What accounts for the difference in acceptability amongst speakers? Even Class I EN constructions are not generally accepted by all speakers. Some speakers only accept some (Class I) EN constructions and reject other (Class I) examples.

I conclude this subsection by arguing that in principle EN can be accounted for by a lexical or a syntactic account, but both accounts are far from satisfactory: the lexical account on pre-theoretical grounds and the syntactic one because of the open questions that have been formulated above. A proper explanation of EN is subject to further study. However, both classes are significantly different from other instances of Negative Concord.

3.3.5 Concluding remarks

In this section I reduced the categorisation of Multiple Negation from four classes to two classes of semantic phenomena: the application of the Law of Double Negation (LDN) and the phenomena in which the LDN does not apply. This yields a typological division between two types of languages: Negative Concord languages and Double Negation languages with a subdivision in Double Negation languages that allow for EN and that forbid EN. This allows us to formulate the following taxonomy of possible interpretations of Multiple Negation (102) and the typology of languages with respect to this interpretation (103). A nice result of the reduction into two types of languages is that the types yield a complimentary distribution: a language exhibits Double Negation or Negative Concord (in the clause).

---

[93] It is not sure whether two arguments always yield two constituents. It can be the case that the two arguments, base-generated in two different maximal projections, generate one constituent under polyadic quantification. In that case the two monadic DP's both move to a higher FP (probably a FocP) in which they form one constituent. In that case the locality restrictions can be formulated in terms of constituency.

(102) Multiple Negation (taxonomy)

```
                        Multiple Negation
                       /                 \
            LDN always              LDN does not
            applies                 always apply
                                   /            \
                    Negative Concord             Emphatic
                   /               \             Negation
        Paratactic           Clause-internal
        Negation             NC
                            /        \
                     Strict           Non-Strict
                     NC               NC
```
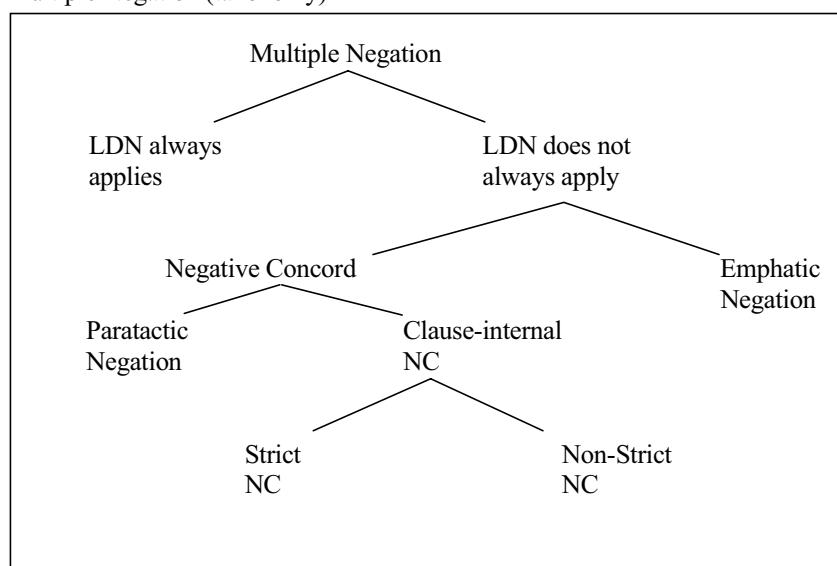
(103) Multiple Negation (typology)

```
    ┌─────────────────┐          ┌──────────────────────┐
    │ Double Negation │──────────│ DN and Emphatic      │
    │ languages       │          │ Negation languages   │
    └─────────────────┘          │ Dutch, German        │
                                 └──────────────────────┘
                                 ┌──────────────────────┐
                                 │ DN without Emphatic  │
                                 │  Negation languages  │
                                 │ Swedish, Norwegian   │
                                 └──────────────────────┘
    ┌─────────────────┐          ┌──────────────────────┐
    │ Negative Concord│──────────│ Strict Negative      │
    │ languages       │          │ Concord languages    │
    └─────────────────┘          │ Czech, Greek, French │
                                 └──────────────────────┘
                                 ┌──────────────────────┐
                                 │ Non-Strict Negative  │
                                 │ Concord languages    │
                                 │ Italian, Spanish     │
                                 └──────────────────────┘
```
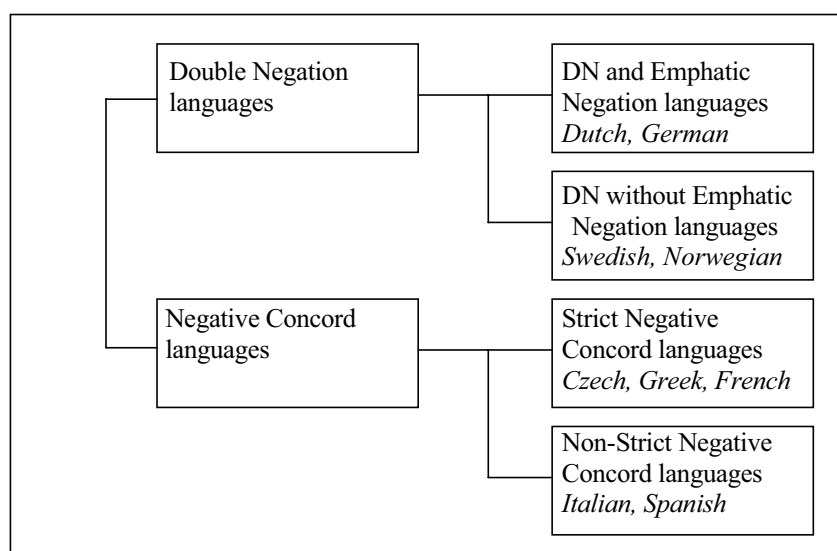
Note that the two diagrams differ. The taxonomy of multiple negation is not reflected in the typology: although EN is not a subclass of DN, it is only found in (some) DN languages. The fact that EN is not found in NC languages follows from their different

properties: NC is the standard way to express negation in a NC language whereas EN is a way to emphasise negation. Therefore a language cannot exhibit both NC and EN, since then the language would no longer be able to express the standard negation without emphasis. Thus EN cannot be found in NC languages and hence EN languages typologically form a subclass of DN languages.

Negative Concord will be a central issue in the rest of this study: not only will I show the correlation between Negative Concord and the syntactic status of negative markers, but I will also show how this correlation leads to a compositional explanation of Negative Concord.

The rest of this chapter will deal with two less widely studied phenomena in the study of negation, namely the way that negation is expressed in imperatives and the relation between universal quantifiers and negative elements.

3.4 Negative imperatives

In this section I will discuss the form of negative imperatives. It is known from the literature (Zanuttini 1998, 2001, Tomic 1999, a.o.) that languages cross-linguistically differ with respect to the availability of true negative imperatives[94]. Some languages allow for this, but others disallow these constructions and express a negative imperative by using a so-called *surrogate imperative*.

Dutch allows both for a true imperative, in which the finite verb takes the imperative form in combination with the negative marker, and for the surrogate imperative, in which the negative marker is combined with a non-imperative form of the verb (in casu the infinitive) yielding an imperative reading (104). Spanish does not allow for true negative imperatives, and only accepts surrogate negative imperatives by using the subjunctive or the infinitive 0. Greek true negatives are not well-formed either (106).

(104) a. Lees *niet*!   Dutch
           Read neg
       b. *Niet* lezen!
           Neg read
           'Don't read'

(105) a. *No* lee! [95]   Spanish
           Neg read.2SG.IMP
       b. *No* leas!
           Neg read.2SG.SUBJ
       c. *No* leer!
           Neg read.INF
           'Don't read'

---

[94] The original observation has been made for Italian (Zanuttini 1998).
[95] Data are from Tomic (1999).

(106)   *_Dhen_ diavase to!   Greek
        Neg/neg read.2SG.IMP it
        'Don't read it'

At first sight one might conclude that the ban on true negative imperatives in Spanish is due to the fact that these languages have a preverbal negative marker as opposed to Dutch, which has an adverbial negative marker. In chapter 5 I will show that there is indeed such a relation, but it is unidirectional. I am not aware of any language that has only a negative adverbial as a negative marker but does not allow for true negative imperatives. However, there is a large group of languages that have a preverbal negative marker but that do allow for true negative imperatives, such as Serbo-Croatian or Bulgarian.

(107)   a.   _Ne_ čitaj ga!   Serbo-Croatian
             Neg read.2SG.IMP it.ACC.CL
        b.   _Ne_ go četi!   Bulgarian
             Neg it.ACC.CL read.2SG.IMP
             'Don't read it'

The relation between the occurrence of true imperatives and the kind of negative marker will be investigated in section 6.4.

3.5   _Negation and universal quantifiers_

In this section I will address an issue that has not been discussed to a large extent in the literature. It has been claimed (Beghelli & Stowell 1997, Hintikka 2002) that clauses consisting of a universal quantifier preceding negation do not always give rise to well-formed expressions, and the interpretation that the marginal acceptable construction may yield inverse scope effects.

(108)   ??Every boy didn't leave

Note that (108) is fine under special intonation that may stem from particular topic or contrastive focus effects[96] ('EVERYBODY didn't leave'). However, it is only marginally acceptable when such intonational effects are absent. Moreover, the sentence is ambiguous between a reading in which the negation scopes over the universal quantifier, and a reading in which the universal quantifier outscopes negation (109).
There may be two kinds of explanations for the marginality of acceptability. Within the first approach these sentences are ruled out due to some syntactic rule as Beghelli & Stowell argue for. The second approach explains these facts from a pragmatic (in

---

[96] Cf. Ladd 1980.

casu game-theoretical) point of view, which stresses that the sentences are not completely out, but yield semantic ambiguities, whereas both readings can be expressed easily by the unambiguous expressions in (109).

(109) a. 'No boy left'   ($\forall > \neg$)
       b. 'Not every boy left'   ($\neg > \forall$)

Hence the speaker would, in order to be as clear as possible, only use such an expression when the pragmatic situation requires it:

(110) John didn't leave; Bill didn't leave; Tom didn't leave; in fact, every boy didn't leave

At first sight a pragmatic solution is to be favoured because it accounts for the acceptability of sentences like (108) in certain contexts. However languages vary cross-linguistically with respect to the interpretation of such sentences with respect to scopal order between negation and universal quantifier.
Languages like Dutch and German yield unambiguous readings in which the universal quantifier scopes over the negation.

(111) a. Iedereen komt *niet* aan voor 6 uur   Dutch
           Everybody arrives not PRT before 6 o'clock
           'Nobody arrives before 6'
       b. Elke man komt *niet* aan voor 6 uur
           Each man arrives not PRT before 6 o'clock
           'Nobody arrives before 6'

Other languages only allow for the reading in which the negation outscopes the universal quantifier

(112) Tous le monde *ne* parle *pas* votre langue   French
       Everybody neg speaks neg your language
       'Not everybody speaks your language'

I will discuss these examples in chapter 6, but the central argument will be that negation blocks movement of universal quantifier to a higher position than the negative operator. Only if the universal quantifier is base-generated in a higher position than the negative operator the $\forall > \neg$ interpretation is possible, otherwise not. Languages differ with respect to the position of the negative operator, so languages with a low negative operator will accept this reading, languages with a high negative operator will not. Hence I will account for this ambiguity in syntactic terms. The reason why these expressions (with their correct interpretations) are still only marginally acceptable has a pragmatic nature: expressions of the forms in (109) are favoured over the constructions using a universal quantifier and a negation for pragmatic reasons.

Note that only quantifiers like *every* or *each* yield marginally acceptance. Negative expressions with a DP containing *all* or constructions with floating quantifiers do not yield any problems for acceptance or interpretability. Also negative expressions that do not only contain a universal quantifier and a negation but also an indefinite expression can be well-formed.

(113) a.   All the men didn't leave before noon
       b.   The men didn't all leave before noon

(114) Every boy didn't buy one book

It will turn out that there is a correlation between the set of languages that do not allow for the $\forall > \neg$ interpretation and the set of languages exhibiting Negative Concord. This requires a theory that explains both phenomena from the same mechanism.

3.6   *Conclusions*

To summarise, the study of negation in natural language is very complex, occupying a central position in both syntax and semantics. In this chapter I discussed 5 different phenomena: (i) Negative contexts and Negative Polarity Items; (ii) different ways that sentential negation can be expressed, the notion of negative markers and their ability to be the subject of diachronic change; (iii) the different possible interpretations of multiple negative expressions; (iv) negative imperatives; and (v) the scopal relation between universal quantifiers and negation.
All these subjects have been studied, but not much has been said about their internal relationship. Although the relation between the syntactic status of negative markers and the occurrence of Negative Concord readings has been the subject of study and debate (cf. Haegeman & Zanuttini 1996, Deprez 1997) and the question whether n-words are NPI's has been widely discussed, hardly any research has for instance been done on the question why Negative Concord languages have the possibility to reverse the universal quantifier and the negative marker at LF.

In the following chapters I will summarise the results of my investigation of negation in Dutch and a set of 25 other languages and provide both a syntactic and a semantic analysis for the results. In these chapters I will address the following questions:

(115) a.   Does the language/variety exhibit Negative Concord?
       b.   If so, is it Strict or Non-Strict Negative Concord?
       c.   Does the language/variety exhibit Paratactic Negation?

(116) a.   Does the language/variety exhibit Double Negation?
       b.   If so, does the language exhibit Emphatic Negation?

These questions are necessary for the typological classification of these languages/varieties with respect to multiple negation.

(117) Does the language/variety have NPI's like *any*-terms that are phonologically distinct from n-words.

In the literature on the semantic nature of n-words in NC languages, it has often been posed that n-words are actually NPI's comparable to English *any*-terms (Laka 1990, Ladusaw 1992, Herburger 2001). The strength of this argument depends on the presence of *any*-terms that phonologically differ from n-words in a particular langue. If a language has both a series of *any* -terms and a series of n-words, an analysis of n-words in terms of NPI's is less likely.

(118) What is the syntactic status of the negative marker that expresses sentential negation in the language/variety?

The relation between the occurrence of NC in a language and the syntactic status (spec/head) of the negative marker has been the subject of debate for a long time (cf. Haegeman & Zanuttini 1996). I will readdress this issue, and in chapter 6 I will formulate a unidirectional generalisation on the basis of the data in chapter 4 and 5.

(119) In which phase of the Jespersen Cycle can the language/variety be classified?

As languages can typologically be classified in terms of 'Jespersen Phases', it is interesting to investigate whether there is any correlation between the Jespersen Cycle and the occurrence of NC.

(120) Does the language allow for true negative imperatives?

The question why negation in certain languages blocks negation is related to the syntax of imperatives and negative markers in these languages. In order to draw a proper generalisation between the occurrence of true imperatives and the syntactic status of the negative marker, this question needs to be investigated for all languages/varieties.

(121) What is the interpretation of constructions in which a universal quantifier precedes the negative marker?

It has been suggested that there is a relation with the scopal order of universal quantifier subjects and NC (Baltin, p.c.). In this study I will examine these correlation and account for it in syntactic terms.

The possible correlation between answers to these questions will form the core of this study. We will see that all phenomena that have been discussed in 3.1-3.5 are correlated. The central empirical research questions therefore are:

(122)   Which correlations/generalisations can be drawn on the basis of the answers to questions (117)-(121)?

(123)   How can these generalisations be formulated such that they form a proper input for syntactic and semantic theory of negation?

In the following two chapters, these questions will be answered for both Dutch microvariation and a set of 25 different languages, mainly European. On that basis I will formulate a set of generalisations that will be analysed and explained in the rest of this book, in chapters 6-8.

4   Negation in Dutch: a typological study

This chapter is dedicated to the description of variation in negation in Dutch, i.e. the range of variation that Dutch exhibits with respect to negation. The chapter is built up diachronically: the first section will deal with the small remains that have survived history. The second paragraph deals with the variation of negation in Middle Dutch. The third paragraph describes the transit between Middle Dutch and Modern (Standard) Dutch, in particular focussing on 17th century Dutch, and the final section will discuss the dialectal variety with respect to negation in Modern Dutch. In this section I will extensively discuss the results of the fieldwork that has been executed for the Syntactic Atlas of Dutch Dialects (SAND).

In these sections I will try to answer the questions that have been mentioned in the end of chapter 3 (repeated in (1)-(6)).

(1)   What is the syntactic status of the negative marker that expresses sentential negation in the variety?

(2)   In which phase of the Jespersen Cycle can the language/variety be classified?

(3)   a.   Does the variety exhibit Negative Concord?
        b.   If so, is it Strict or Non-Strict Negative Concord?
        c.   Does the variety exhibit Paratactic Negation

(4)   a.   Does the variety exhibit Double Negation?
        b.   If so, does the language exhibit Emphatic Negation?

(5)   Does the language allow true negative imperatives?

(6)   What is the interpretation of constructions in which a universal quantifier precedes the negative marker?

I will answer these questions in four subsections for every section: the first two questions will be addressed in the first subsection on *negative markers*. The questions with respect to multiple negation ((3)-(4)) in the subsection on *Negative Concord*. Questions (5) and (6) will be dealt with in the subsections on *negative imperatives* and *universal subjects and negation* respectively[97].

After the four sections containing the descriptions of these particular issues, I will describe the correspondences between these data in section 5. These generalisations will be compared with a sample of 25 other languages in the next chapter.

---

[97] There will not be any subsection on universal quantifier subjects in negative sentences in old Dutch due to a lack of data.

The fact that we are dealing with historical material has as an important consequence that not every question can be answered properly due to lack of data. However, on the basis of the data I will draw some generalisations. These generalisations will first be checked with a sample of 25 non-arbitrarily chosen languages. Gaps in the Dutch data may then be compensated by this typological research. The final generalisations, that will form the input for the syntactic and semantic analyses in this book, will thus not suffer from any incompleteness in the Dutch data.

4.1 Negation in Old Dutch

Old Dutch is the name of the earliest known form of Dutch. It refers to all varieties of Dutch that have been spoken until the 10th century. A central problem in the study of Old Dutch is that hardly any original texts are available. Only one text of Old Dutch *De Wachtendonckse psalmen* 'The Wachtendonck Psalms', dating from the 9th Century, has survived. Another manuscript, *De Leidse Willeram* 'The William from Leyden,' is sometimes also considered to be an Old Dutch text. This translation of east lower Franconian comments, in which the high-German elements have been replaced by the dialect of Egmond around 1100 is however significantly younger than *The Wachtendonck Psalms* and is therefore not a good example of proper Old Dutch.[98]

The oldest text, the so-called Wachtendock Psalms[99], is a 9th century translation from Vulgate Latin psalm texts. Although the original text disappeared, a copy of a part of the translation remained. The text consists of two parts: a translation of a number of Vulgate Latin psalms; and the glossed translations of several Latin words into Old Dutch, known as *Lipsius' glosses*. In both parts, the translation is very close to the texts and it has been subject of debate to what extent this translation can tell us anything about the grammar of Old Dutch. Both Hoeksema (1997) and Postma (2002) argue that 'since they [the psalm glosses] are word-by-word translations from the Latin Vulgate-text, they cannot be used as evidence.'[100]

However, the observation that the text is a complete word-by-word translation is false. One can find several examples in which the Dutch glosses do not correspond 1:1 with the original text. This is also the case for some negative sentences. The following example shows that the translation included a negative marker *ne* that was absent in the Latin text.

(7)   a.   *nequando* obliviscantur populi mei[101]   Vulgate Latin
             never forget.3PL.FUT people my

---

[98] Except for these two texts two other very short fragments have survived, but these fragments (one of the two is the famous *habban olla vogala* …), do not contain any instance of negation.
[99] Cf. Van Helten (1902), Cowan (1957), Keyes (1969), Quak (1981), De Grauwe (1982).
[100] Hoeksema (1997): 140.
[101] Wachtendonck Psalms: 58:12.

    b.   that *nohuuanne ne* fargetin folk mîn   Old Dutch
          that n-ever neg forget.3PL.CONJ my people
          'so that they will never forget my people'

Against the background of this strict translation, it is surprising that the translator included this element *ne*. Apparently the n-word *nohuuanne* 'n-ever' did not suffice to express the sentential negation in this sentence. This supports two conclusions: (i) the Old Dutch negative marker is *ne*; and (ii) Old Dutch is a NC language. In 4.1.1 I will discuss negative markers in Old Dutch, in 4.1.2 I will discuss NC in Old Dutch. In 4.1.3 I will show that Old Dutch does not allow for true negative imperatives. A paragraph on the interpretation of universal subjects in negative sentences is absent, since the Latin Psalms texts do not contain any such examples. Subsection 4.1.4 concludes.

4.1.1   Negative markers in Old Dutch

The first conclusion that Old Dutch expressed sentential negation by means of a single preverbal negative marker *ne* is also supported by the fact that *ne* is the general translation of negative markers in Latin in this text.

(8)   a.   Et in via peccatorum *non* stetit[102]   Vulgate Latin
          And in way sinners.GEN non stood.3SG
    b.   Inde in uuege sundigero *ne* stûnt   Old Dutch
          And in way sinners.GEN neg stood.3SG
          'And didn't stand in the way of sinners'

(9)   a.   Subito sagittabunt eum, et *non* timebunt[103]   Vulgate Latin
          Suddenly shoot.3SG.FUT him, and not fear.3SG.FUT
    b.   Gâlico scutton sulun imo, in *ne* sulun forhtun   Old Dutch
          Suddenly shoot will.3SG him, and neg will.3SG.fear
          'Suddenly they will shoot him and they will not fear'

However, even Old Dutch already exhibits instances similar to the Middle Dutch negative adverb *niet,* namely *niuueht*.

(10)   a.   Beatus vir qui *non* abiit in consilio impiorum[104]   Vulgate Latin
          Blessed man who not walks in counsel impious.PL.GEN
    b.   Salig man ther *niuueht* uôr in gerêde ungenêthero   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'

---

[102] Wachtendonck Psalms: 1:1.
[103] Wachtendonck Psalms: 63:5.
[104] Wachtendonck Psalms: 1:1.

(11)   a.   *Non* sic impii, *non* sic[105]   Vulgate Latin
             Not so impious.PL. not so
       b.   *Niuueht* sô ungenêthe, *niuueht* sô   Old Dutch
             Neg so impious.PL. neg so
             'Not like this, impious, not like this'

The following question immediately rises: what is the status of sentences with a single negative adverb *niuueht*. At least three different accounts are possible: first, Old Dutch had two different phonologically distinct negative markers, *ne* and *niuueht*; second, Old Dutch was in fact a Jespersen Phase II languages that could optionally add a negative adverb *niuueht* next to the obligatory present *ne*. The fact that *ne* has been left out in these examples is due to the fact that the translator wanted to stay as close to the text as possible; third, *niuueht* is in fact not a negative marker, but a compound of a negative marker *ne* and an indefinite element *uueht* 'what'.

The first hypothesis would be in contradiction with Jespersen's diachronic development of negation. Of course it could be the case that Dutch diachronic development of negation is not in line with the general picture sketched by Jespersen (1917), but an analysis that can account for these facts without violating Jespersen's generalisation is to be preferred. Although not violating Jespersen's observation, the hypothesis that the translator had left out *ne* in these cases is too strong too, since it follows from the example in (7) that the translator would in fact include an extra negative marker *ne*, if that would be necessary for grammatical reasons. The third hypothesis also accounts for the presence of two distinct negative markers without contradicting Jespersen's generalisation: suppose that *niuueht* is composed of a negative marker *ne* and some non-negative indefinite element *uueht*. In this case, *ne* would still be the only negative marker, which can be strengthened by adding an indefinite element. This third hypothesis is supported by several facts: (i) many languages strengthen negation by means of adding indefinite elements. Examples are e.g. *pas* 'step', *point* 'point', *mie* 'crumb' and *goutte* 'drop' in Old French[106] or *ænige Þinga* 'any things'[107] in Old English; (ii) it fits nicely in Jespersen's general observation of diachronic change of negative markers: the formation of negative adverb is the result of assigning negation to an indefinite particle; (iii) in the Wachtendock Psalms texts examples of non-negative indefinite *uuether* (related to *uueht*) can be found as the translation of *numquid*[108] 'something/somewhat;' (iv) in Middle Dutch (and still in Modern Dutch) instances of *wat* 'what' are still used as indefinite expressions meaning 'something' or 'a bit'[109]; (v) in Early Middle Dutch

---

[105] Wachtendonck Psalms: 1:4.
[106] Cf. Roberts 2000, Eckardt 2002, Roberts & Roussou 2003.
[107] See also 3.2.3.
[108] Wachtendonck Psalms: 88.48 (this piece only glosses some terms).
[109] This construction, in which a negative marker attaches to an indefinite expression, is similar to the Modern Dutch word *nietwat* (neg what 'not a bit').

    (i)   Vind je het nietwat koud?
               Find you it neg.what cold
               'Don't you think it's a bit cold?'

this indefinite *wat* is allowed to occur in sentences without the obligatory negative marker:

(12)   Die worme *ne* hebben wat verteren[110]   Middle Dutch
        The worms neg have what digest
        'The worms don't have anything to digest'

Hence I conclude that Old Dutch is a Phase I or II language with a negative marker *ne* that always occurs in preverbal position. Occasionally this marker can be strengthened by an indefinite element similar to Middle or Modern Dutch *wat* 'what', that forms a compound with the negative marker, yielding the negative adverb *niuueht* that in these texts is able to express the sentential negation by itself. This *niuueht* is the forerunner of Middle Dutch *nie(t)* 'neg'.

4.1.2   Negative Concord in Old Dutch

The second conclusion that can be drawn from (7) is that Old Dutch exhibits Negative Concord. This conclusion is also supported by the fact that the translator also translated several Latin non-negatives by n-words.

(13)   a.   *Non* me derelinquas   usquequaque[111]   Vulgate Latin
              Neg me leave.2sg.imp anywhere/anytime
        b.   *nieuuergin*   Old Dutch
                                    n-where
        'Don't leave me anywhere/anytime'

Whereas the Latin texts could suffice with a negative marker *non* and a non-negative adverb, the Old Dutch translation requires a second negative element. Other examples involve the translation of Vulgate Latin *ne ... neque* 'neither … nor' standardly translated by Old Dutch *ne ... ne ôch* or *ne ... noh* (14). However, in some cases the translator added a second negative marker *ne* after *noh* in these constructions that got spelled out as *nohne* (15). This indicates that the sentence would otherwise suffer from ungrammaticality as well.

(14)   a.   Ideo *non* resurgent impii in iudicio,   Vulgate Latin
                  neque peccatores in consilio iustorum[112]
              Thus not rise.fut.3PL impious.PL.nom in judgement,
                  neither sinners in councel justice.GEN

---

[110] Der Nature Bloeme, VII Wormen, 12491.
[111] Wachtendonck Psalms: 118.8 (the original manuscript consists of a number of translations of Psalm texts and a list of some translated Latin words from other Psalms).
[112] Wachtendonck Psalms: 1:5.

    b.   Bethiu *ne* upstandunt ungenêthege in urdeile,   Old Dutch
          ne ôch sundege in gerêde rechtero
       Thus not rise.fut.3PL impious.PL.nom in judgement,
          neither sinners in councel justice.GEN
       'Therefore the impious shall not rise in judgment,
          nor sinners in the council of the just'

(15) a.   *Non* me demergat tempestas aqae,   Vulgate Latin
          neque asborbeat me profundum[113]
       Not me let.drown. temptations water.GEN
          neither absorb me deep
    b.   *Ne* mi besenki geuuidere uuateres,   Old Dutch
          nohne farsuelge mi diupi
       Neg me let.drown temptations water.GEN
          neither swallow.up me deep
       'Let not the temptations of water drown me, *nor* the deep swallow me up'

Thus Old Dutch can be regarded as a NC language, despite the small number of NC occurrences in this text. Note that NC is also clause bound in Dutch. The following example (16) exhibits an instance of Old Dutch with three negative elements. The first two negative are comparable to the *not … nor* construction. The third negative element *ne* is in a subordinate clause and hence unable to establish a NC relation with a negative element in the matrix clause.

(16) a.   *Non* sunt loquelae *neque* sermones   Vulgate Latin
          quorum *non* adiantur voces eorum[114]
       Not are discourses not.and speeches
          of.which not was.heard voiches their
    b.   *Ne* sint sprâken *noh* uuort thero *ne* uuerthin   Old Dutch
          gihôrda stemmen iro
       Neg are discourses neg are there words
          heard voices their
       'There are no discourses nor speeches in which there voices were not
          heard'

In these texts no instances of Paratactic Negation have been found. Note however, that this does not exclude their existence in Old Dutch. Paratactic Negation (PN) is always optional, and since the psalm texts in Vulgate Latin do not exhibit any NC, there were no examples of PN in the original text. As the translator would only include extra n-words for the sake of grammaticality, there was no need to include PN in the translation. Hence they are not found in the text.

---

[113] Wachtendonck Psalms: 68:16.
[114] Wachtendonck Psalms: 18:3.

4.1.3   Negative Imperatives in Old Dutch

There are three kind of imperative constructions in Old Dutch: translations from Latin imperative forms in which a 2nd person pronoun is added in the translation; single imperatives without a 2nd person pronoun and plural imperatives without a 2nd person pronoun.

The latter case only occurs in non-negative contexts (17), both in the Latin and in the Old Dutch text. Hence these examples cannot indicate whether true imperatives are allowed or forbidden in Old Dutch.

(17)   a.   Cantate deo, psalmum dicite nomini eius   Vulgate Latin
              Sing.IMP god.DAT, psalm say.IMP name.ABL his
        b.   Singet gode, lof quethet namon sînin   Old Dutch
              Sing.IMP god, hymn say.IMP name his
              'Sing to god, say a psalm in his name'

The other two kinds of negative imperatives in Old Dutch can be preceded by *ne*. The example in (18) shows a negative imperative construction that included as 2nd person singular pronoun *thu* 'you', (19) exhibits a negative imperative without an additional personal pronoun.

(18)   a.   *Ne* occidas eos[115]   Vulgate Latin
              Not slay.imp them
        b.   *Ne* reslag thu sia   Old Dutch
              Neg slay you them
              'Don't slay them'

(19)   a.   *Ne* proicas me in tempore senectutis[116]   Vulgate Latin
              Neg throw me in time old-age.GEN
        b.   *Ne* faruuirp mi an tîde eldi   Old Dutch
              Neg throw me in time old
              'Don't throw me in the old ages'

4.1.4   Concluding remarks

It follows from this small amount of Old Dutch data that Old Dutch was either a Phase I or II language, which in general expresses negation by means of a preverbal negative marker and occasionally exhibits instances of the negative adverb *niuueht*. Old Dutch also contains indefinite markers, such as *uuether* 'what', which may enforce (sentential) negation. Furthermore, Old Dutch is a Negative Concord

---

[115] Wachtendonck Psalms: 58:12.
[116] Wachtendonck Psalms: 70:9.

language, though it remains unknown whether it is Strict or Non-Strict NC. No examples of PN have been found. Finally, Old Dutch seems to allow for negative imperatives. The interpretation of universal subjects in negative sentences remains unclear.

4.2 *Negation in Middle Dutch*

In this section I will re-address the same questions with respect to Middle Dutch. In 4.2.1 I will discuss the status of negative markers in Middle Dutch, with special emphasis on occurrences of a single preverbal negative marker *en/ne*. In 4.2.2 I will describe different instances of NC in Middle Dutch and in 4.2.3 I will discuss the presence of true negative imperatives. In 4.2.4 I will discuss the interpretation of sentences containing both a universal quantifier subject and a negative marker and 4.2.5 concludes.

4.2.1   Negative Markers in Middle Dutch

Dutch has often been considered as a prototypical example of a language that underwent the Jespersen Cycle (cf. Jespersen 1917, Hoeksema 1997). Whereas Old Dutch exhibits a negation pattern in which there is only one preverbal negation, Middle Dutch exhibits so-called Embracing Negation, whereby both a preverbal negative marker and a negative adverb together express sentential negation. Embracing negation is found in all environments in which finite verbs may occur: V1 positions (20), V2 positions (21) and clause-final V positions (22).

(20)   *En* laettine mi spreke *niet*[117]   13th Century Dutch
        Neg let.he me speak neg
        'If he does't let me speak'

(21)   Si*ne* ware *niet* genedert heden[118]   13th Century Dutch
        She.neg were neg humiliated currently
        'She wasn't humiliated currently'

(22)   Dat si *niet en* sach dat si sochte[119]   13th Century Dutch
        That she neg neg saw that she looked-for
        'That she didn't see what she looked for'

Embracing negation, the standard way to express sentential negation in Middle Dutch, is completely in line with Jespersen's generalisation. The preverbal negative marker *en/ne* is apparently to weak to express negation by itself, and is therefore supported by

---

[117] Lanceloet: 20316.
[118] Lanceloet: 20166.
[119] Lanceloet: 20042.

a negative adverb *niet*. Still one can find two kinds of exceptions in Middle Dutch: occurrences of single *en/ne* and occurrences of single *niet*. I will discuss the latter phenomenon in the next section (4.3.1), since the absence of *en/ne* is most typical for 16th and 17th century (Holland) Dutch.

The occurrence of sentences with single *en/ne* is also relatively frequent in Middle Dutch. This is not surprising, since the transit from Phase II into Phase III is gradual. Also one finds occurrences of single *en/ne* that are only allowed in specific contexts. Hence one can distinguish two different kinds of occurrences of single *en/ne* in Middle Dutch: (i) remnants from Old(er) Dutch, and (ii) special constructions that require only single *en/ne*.

Burridge (1993) describes that common usage verbs, like *to say* and *to know* are often negated without the adverb *niet*. She accounts for this fact by arguing that common usage verbs are often conservative with respect to syntactic change. This would imply that these expressions are rather stored lexically than syntactically produced. Evidence that common usage expressions tend to be conservative (with respect to negation) follows from the dialect of Ghent (East Flanders), or from English, in which some expressions may still be denied by a preverbal negative marker respectively without the dummy auxiliary *do*.

(23)   K'*en* weet   Ghent Dutch
        I.neg know
        'I don't know'

(24)   I hope *not*   English

Postma (2002) argues that true instances of single *en/ne* can never occur, and that all occurrences of these constructions are related to the fact that the negative adverb *niet* has been replaced by a Negative Polarity Item (NPI). Apart from these common usage verbs and Paratactic Negation (see 4.2.2), Postma lists a series of other contexts in which the preverbal negative marker stands on its own. These contexts are: (i) combinations with the verbs *roeken* 'to care', *doghen* 'ought' or verbs with a prefix *ghe*; (ii) the gradual markers *twint* 'the least', *bore* 'al lot' or *meer* '(any)more', (iii) coordination under disjunction and (iv) rhetoric questions.

(25)   Hem *en* <u>roekt</u> wat sie lieghen[120]   Middle Dutch
        Him neg cares what they lie
        'He doesn't care what they lie about'

(26)   Hi was al blent, hi*ne* sag <u>twint</u>[121]   Middle Dutch
        He was already blind, he.neg saw TWINT
        'He was already blind, he didn't see anything'

---

[120] Cf. Postma (2002).
[121] Cf. Postma (2002).

(27)   Wedert been is tobroken, wedert *en* is.   Middle Dutch
        Whether.the leg is broken, whether neg is
        'Whether the leg is broken or not'

(28)   *En es dit Floris mijn soete lief*[122]   Middle Dutch
        Neg is this Floris my sweet love
        'Isn't this Floris, my sweet love'

Postma argues that all these contexts are downward entailing and able to license
NPI's. This is according to him the reason for the possible absence of *niet*. Since the
preverbal negative marker in Middle Dutch is too weak to express sentential negation
by itself, it always ought to be accompanied by (at least) a second element that
enforces the negation. This can either be a second negative marker *niet*, or an NPI that
can only be uttered felicitously in a downward entailing context due to its indefinite
character. The same effect can still be seen in French.

(29)   a.   *Jean *n'*a une idée   French
             John neg.has neg an idea
             'Jean doesn't have an idea'
        b.   Jean *n'*a *pas* une idée
             John neg.has neg an idea
             'Jean doesn't have an idea'
        c.   Jean *n'*a <u>aucune</u> idée
             Jean neg.has any.NPI idea
             'Jean doesn't have any idea'

In this example the presence of the NPI *aucun* 'any' legitimises the absence of the
normally obligatory negative adverb *pas*. Postma is right in arguing that the absence
of *niet* in many cases should be compensated. However, his claim that this can only be
compensated by NPI's is too strong. E.g. one also finds single *en/ne* in conservative
expressions. Moreover, non-NPI indefinites are also allowed to participate in negative
constructions without *niet*.

(30)   Wi$^\alpha$*ne* hebben [<u>wat</u>$_i$ PRO$^\alpha$ eten t$_i$]^{123} Middle Dutch
        We.neg have WAT eat
        'We don't have any food'

Postma accounts for these facts by arguing that indefinite *wat* is also an NPI that
needs to be licensed by an appropriate context. This context is in this case not
introduced by a lexical element but by a structural configuration, the result of so-
called *tough movement* of the *Wh* element (30). Although it is not excluded that

---

[122] Cf. Postma (2002).
[123] Cf Hoeksema 1997.

syntactic constructions may license NPI's[124], in this case the motivation to link these constructions to NPI contexts is to account for the single occurrences of *en/ne* in these contexts, and thus stipulative in nature. Moreover, Middle Dutch *wat* is also allowed in non-negative or non-downward entailing context that lack tough movement constructions as well. Therefore I do not adopt Postma's conclusion that indefinite *wat* should be regarded as an NPI.

(31)   Ic sie ghi cont wel wat vinden[125]   Middle Dutch
        I see you can PRT WAT find
        'I see you can find something'

Thus it is not only empirically ungrounded to account for those constructions as NPI's, it is also unnecessary. It is known that indefinites are able to enforce a negation, and that these indefinites may in due course be reinterpreted as proper negations. Moreover, given the fact that Old Dutch exhibited a single preverbal negative marker as well, the explanation in terms of conservative expressions is plausible, given the gradual character of the change from Jespersen Phase II to Phase III.

Hence apart from negative sentences with Embracing Negation one may find occurrences of single *en/ne,* which are either remnants from Old Dutch, or expressions that contain an indefinite expression that enforces the negation. This indefinite may be an NPI in some cases, and in other cases not.

4.2.2   Negative Concord in Middle Dutch

A third case in which the preverbal negative marker *en/ne* does not necessarily occur in combination with *niet* are contexts with n-words.

(32)   a.   Ic *en* sag *niemen*[126]   Middle Dutch
              I neg saw n-body
              'I didn't see anybody'
        b.   Die *niemen en* spaers[127]
              That n-body neg saves
              'Who saves nobody'

---

[124] Cf. The so-called middle construction can be considered as an NPI construction as it licenses any-terms. Most probably this is due to some hidden negative operator. Cf. Lekakou 2003.
[125] Reynaarde II: 6112.
[126] Cf. Hoeksema 1997.
[127] Vanden levene ons heren 2018.

(33)   Ende *en* willen *niets* anders secge[128]   Middle Dutch
        And neg want.3PL n-thing different say
        'And they don't want to say anything different'

(34)   Dat *en* haddi *noyt* ghedaen te voren[129]   Middle Dutch
        That neg had.he n-ever done at before
        'That he had never done before'

(35)   Hi *en* woude *nergen* gaan[130]   Middle Dutch
        He neg wanted n-where go
        'He didn't want to go anywhere'

(36)   Daer *ne* was *gheen* // die roupen dorste[131]   Middle Dutch
        There neg was n- that call dared
        'There was none who dared to call'

In these cases an n-word took over the role of the negative adverb *niet* and establishes an NC relationship. This immediately answers the second question to be addressed in this section, namely that Middle Dutch is an NC language. Middle Dutch is in fact a Strict NC language as the preverbal negative marker *en/ne* is allowed to intervene between a preverbal negative subject and the verb:

(37)   *Niemen en* had mi *niet* gesien[132]   Middle Dutch
        N-body neg had me neg seen
        'Nobody saw me'

Note that the Middle Dutch adverb *niet* is allowed to participate in NC relations as well, as the example above only contains one negation in its semantics. In fact *niet* may even participate in NC relations in which *niet* is followed by an n-word: in (38) *niet noeyt* 'neg n-ever' means 'never' and in (39) the first *niet* precedes the n-word *niks* 'n-thing', but the sentence does not yield any Double Negation. Hence one can safely conclude that Middle Dutch was an NC language.

(38)   mi *en* twifelt *niet noeyt* erger quaet // dat ic oyt was   Middle Dutch
            van venus discipels ionghen[133]
        me neg doubts neg n-ever worse evil that I ever was
            of Venus' pupils young
        'I don't doubt there was ever worse evil than when I was
            a young pupil of Venus'

---

[128] Spiegel Historiael (V): 33243.
[129] Borchgrave van Couchi 1: 158.
[130] Merlijn 1039.
[131] Alexanders geesten 10:241.
[132] Cf Hoeksema 1997.
[133] Antwerps Liedboek 153:2.

(39)   Den onderseten *niet en* was // gheoorlooft *niets niet*   Middle Dutch
            met allen // aen enen andren paus te vallen[134]
        The shephards neg neg was // allowed n-thing neg
            with all PRT an other pope to attack
        'The shephards were not at all allowed to attack another pope together'

Middle Dutch also exhibited PN, as follows from (40).

(40)   Doe wilden sie <u>verbieden</u> hem   Middle Dutch
            dat hi in den temple *niet* ginge
        There would they forbid him that he in the temple neg went
        'They would forbid him to go in the temple'

Note that PN is the only instance of non-clause bound NC in Middle Dutch. In the case of two negations in different clauses, no NC relation is established.

(41)   Maer ferguut hem *niet en* betrout   Middle Dutch
            Hi*ne* liet den rose hem *niet* na com*en* [135]
        But Ferguut him neg neg trust, he.neg let the giant him neg PRT come
        'But Ferguut didn't trust him, so he let the giant not follow him'

The claim that NC in Middle Dutch is clause bound has been under attack by Hoeksema (1997), who shows examples in which negative elements in different clauses seem to have a single negative reading.

(42)   Ic *en* wane *niet* dat te Bonivente //   Middle Dutch
            Ne geen so goet was tenegen tiden[136]
        I neg think neg that at B. neg one so good was at any time
        'I don't think that anybody was so good at B at anytime'

However, the examples that Hoeksema shows all involve matrix verbs like *want* or *think*. These verbs are known to allow for so-called *neg raising* (Horn 1989). In these cases the negation in the matrix clause in fact reflects a mere negation in the embedded course that only for pragmatic purposes has raised to a higher position. This phenomenon is still available in Modern Dutch or English:

(43)   a.   Ik weet *niet* of ik het mooi vind.   Modern Dutch
              I know neg whether I it nice find
              'I know I don't like it'
        b.   I do*n't* think he shows up tonight
              'I think he doesn't show up to night'

---

[134] Brabantsche yeesten 7957-9.
[135] Ferguut 1168.
[136] Cf Hoeksema (1997).

In (43) the matrix clause contains a negation, although these sentences are standardly interpreted as if the negation were in the subordinate clause. The same can be the case for (42). The NC relationship in (42) may been established when the higher negative marker was still in the embedded clause, and therefore examples like (42) cannot count as proper evidence against the claim that NC is clause bound in middle Dutch.

4.2.3   Negative Imperatives in Middle Dutch

Strong verbs differ from weak verbs with respect to their imperative singular forms. Strong verbs express the imperative form by means of ∅ inflection, and weak singular imperatives end on a schwa. These forms are different from the 2nd person singular indicative or subjunctive forms, which always end on an –*s*.[137] This makes it possible to investigate the presence of negative imperatives. If we find negative imperatives ending on a schwa or without inflection, there is no ban on negative imperatives. This is indeed the case. Negative imperatives occur quite regularly in Middle Dutch.

(44)   *En* com an mi *niet*[138]   Middle Dutch
         Neg come.imp me neg
         'Don't touch me'

(45)   *En* nem in dinen moet //   Middle Dutch
         nie gheen valsch ghewonnen goet[139]
         Neg take in your mood neg no falsely gained goods
         'Don't take in your mind any stolen goods'

(46)   *En* make mi *geen* gespringe[140]   Middle Dutch
         Neg make me no resistance
         'Don't resist against me'

Hence on the basis of these examples, I conclude that negative imperatives in Middle Dutch are allowed.

4.2.4   Universal subjects and negation in Middle Dutch

The final question to be addressed in this section addresses the interpretation of sentences in which a universal quantifier subject (∀-subject) is followed by a negation in Middle Dutch. In most examples in which a universal subject quantifier precedes a sentential negation, the quantifier scopes over the negation.

---

[137] Cf. Franck (1967) and Le Roux and Le Roux (1945).
[138] Spiegel historiael XXXIIII: 70.
[139] Die x. plaghe en die x. ghebode: 2044-5.
[140] Vierde Martijn 840.

(47) <u>Elc</u> *en* haette anderen niet sere[141]   Middle Dutch
      Each neg hated others neg very
      'Nobody hated the others very much'

(48) <u>Elc</u> *en* wilde door den vaer   Middle Dutch
          Van sinen vrient niet sceiden daer[142]
      Each neg wanted through the fear of his friend neg separate there
      'Nobody wanted to be separate from his friend there'

However, few examples can be found where the negation seems to scope over the universal quantifier. A sentence as in (49) obtains a reading in which the negation scopes over the quantifier, since it is clear from the context that the speaker does not count himself to those kind of writers who have no idea what they are saying or writing.

(49) I*n* loghens *niet*, ic maecte tliet. Maer <u>elc</u> *en* weet *niet*   Middle Dutch
          al tbediet // Wat hi seit of wat hi scrijft[143]
      I.neg lied neg, I made the.song. But each neg knows neg
          all it means what he said or what he writes
      'I didn't lie, I made the song. But not everyone knows what it all means
          what he says or writes'

Although there seems to be a strong bias towards an interpretation in which the universal scopes over the negation, Middle Dutch is probably ambiguous with respect to the interpretation of constructions in which a universal subject precedes the marker of sentential negation. A claim that says that universal quantifier subjects always scope over the negation seems to be ungrounded.

4.2.5   Concluding remarks

On the basis of the data in this section, it is safe to conclude that Middle Dutch is a prototypical Phase III language, in which except for some conservative expressions, negation is expressed by means of Embracing Negation *en/ne … niet*, although a marker indicating indefiniteness may replace *niet*.
Middle Dutch is a Strict NC language, in which the negative adverb *niet* is free to participate. Contrary to Hoeksema's assumptions Middle Dutch NC is clause bound, but allows for (non-clause bound) Paratactic Negation.
Middle Dutch clearly allows for true negative imperatives, and Middle Dutch seems to allow for inverse scope readings of $\forall$-subjects that precede negative markers.

---

[141] Ferguut 5559.
[142] Grimbergse oorlog 4332.
[143] Gruuthuse Poems I: 1292.

4.3   Negation in *16ᵗʰ and 17ᵗʰ Century Dutch*

Middle Dutch was a Jespersen Phase III language, whereas Modern Dutch is a Jespersen Phase V language. In this section I will describe the transit period in which Dutch exhibited Jespersen Phase IV behaviour. The title of this section is somewhat misleading. Although the major transit from Phase III to Phase IV took place in this period, it was locally restricted to Holland Dutch. Flanders exhibited this change much later, in some dialects even at the end of the 19ᵗʰ century. Second, the change did not appear at once. Already in Middle Dutch there were instances of Phase IV patterns of negation, so 16ᵗʰ and 17ᵗʰ century Dutch exhibits only a part of the era that Dutch was a Phase IV language. However, apart from those instances of Middle Dutch, which are relevant in this discussion, I will restrict myself to 16ᵗʰ and 17ᵗʰ century Holland Dutch.

In the first paragraph I will discuss so-called *en* deletion, the process in which the preverbal negative marker gradually disappears. In 4.3.2 I will describe different instances of NC in 16ᵗʰ and 17ᵗʰ century Dutch, and in 4.3.3 and 4.3.4 I will discuss instances of negative imperatives and negative sentences with a universal quantifier subject respectively.

4.3.1   Negative markers in 16ᵗʰ and 17ᵗʰ century Dutch

In Middle Dutch, sentential negation was usually expressed by means of Embracing Negation, though sometimes, instances of single *niet* were already present. Van der Horst & Van der Wal (1979) show that the instances of single *niet* only occurred in particular syntactic environments. These environments were: (i) V1 sentences (50); (ii) V2 sentences with subject-verb inversion (51); (iii) subordinate clauses (52); (iv) absence of finite verbs that are under the scope of negation. The latter category refers either to constituent negation, in which the verb is not under the scope of negation, or ellipsis, in which a second finite verb is left out. Obviously, in those cases there is no preverbal negative marker. Basically Van der Horst & Van der Wal show that only in V2 contexts without subject-verb inversion *en*-deletion is not allowed.

(50)   a.   Suldier *niet* toe helpen?[144]   Middle Dutch
               Will.you.there neg to help
               'Won't you help there?'
        b.   Ende nem mi niet voor dijn oordel[145]
               And take.imp me neg vefore your judgmenet
               'Don't take me in front of your judgement'

---

[144] Mariken 470 (cited in Van der Horst & Van der Wal (1979): 9).
[145] Reynaerde 244/6 (cited in Van der Horst & Van der Wal (1979): 9).

(51)   Mine herberge ontseggic u *niet*[146]   Middle Dutch
        My tavern take.away.I you neg
        'I won't take you my tavern away'

(52)   dat hem tcoude *niet* mochte deeren[147]   Middle Dutch
        that him the.cold neg might harm
        'that the cold couldn't harm him'

(53)   De zee was diep ende *niet* te wijt[148]   Middle Dutch
        The sea was deep and not too wide
        'The sea was deep but not too wide'

In the 16th century the process of *en*-deletion shows a curious development. Whereas in Middle Dutch instances of single *niet* mostly occurred in V1 or subordinate contexts, in 16th century Dutch sentential negation was expressed only by means of the negative adverb *niet* in most V1 and V2 contexts, while subordinate clauses showed a revival of Embracing Negation. In fact, the subordinate clause is the last environment that bans Embracing Negation. The following table (taken from Burridge 1993) shows the frequencies of en-deletion in Holland and Brabant Dutch.

(54)   *En*-deletion in Holland Dutch (in %)

	V1	V2	Final
1300	43	28	8
1400	75	25	36
1500	77	48	28
1600	100	30	8
1650	100	100	98

(55)   *En*-deletion in Brabant Dutch (in %)

	V1	V2	Final
1300	21	0	5
1400	-	-	-
1500	50	9	0
1600	57	5	5
1650	100	9	6

From the picture in (54)-(55) it would follow that *en* deletion took first place in V1 environments, and later in V2 contexts. However, this picture is not entirely correct. Van der Horst & Van der Wal (1979) and De Haan & Weerman (1984) show that *en* deletion occurs simultaneously in V1 and topicalised V2 constructions.[149] This means that all instances of *en* deletion in V2 contexts, in e.g. 1650 Brabant Dutch, are cases

---

[146] Ferguut 839 (cited in Van der Horst & Van der Wal (1979): 9).
[147] De reis van Sente Brandane: 605 (cited in Van der Horst & Van der Wal (1979): 10).
[148] Potter, Den Minnen Loep: 174:21 (cited in Van der Horst & Van der Wal (1979): 11).
[149] Topicalized V2 constructions have the order Topic – V_{fin} – Subject.

of inversion. This observation corresponds nicely to the fact that only subjects may be weak in sentence-initial position. Given that *en/ne* in 16th and 17th century Dutch has already become a weak element, the fact that *en* deletion took place first in V1 and topicalised V2 position can be explained as a result of this ban on non-subject weak elements in preverbal V2 position in Dutch.

(56)   a.   K'heb 'm gezien   Dutch
             I.have him seen
             'I saw him'
       b.   *'M heb ik gezien
             Him have I seen
             'Him I saw'

Thus Dutch follows the development as described by Jespersen. Gradually, the preverbal negative marker loses force and the negative adverb adopts the role of the proper negation. Van der Horst & Van der Wal seek an explanation for this in terms of general typological tendencies. They follow Vennemann (1974) who connects the Indo-European development with respect to sentential negation with the alleged the shift from SOV to SVO that Indo-European languages underwent in general. Vennemann argues that the OV-VO shift (English being a prototypical example) is in fact a shift from XV to VX where X can be any category, including negation. Hence Old Dutch has the old NegV order with the preverbal negative marker *en/ne* as the only expressor of negation, whereas Modern Dutch exhibits only VNeg behaviour. This analysis suffers form several severe problems: first, the claim that Dutch ondergoes a shift from OV to VO is false. Both Middle Dutch and Modern Dutch exhibit OV in subordinate clauses, and moreover Middle Dutch was even more liberal with respect to embedded VO orders than Modern Dutch. Second, De Haan & Weerman (1984) argue that the preverbal negative marker *en/ne* shows behaviour that indicates that these elements should be understood as clitics or affixes. Lehmann (1974) however argues that in OV languages clitics occur to the right of the verb, and in VO languages to the left. This would mean that one should expect the preverbal negative marker to occur more frequently rather than less frequently.

The question is then: what explains the shift from Embracing Negation to the single appearance of the adverb *niet* in sentential negation? I will not answer this question here, as I will deal with aspects of language change and negation extensively in chapter 8, but it seems clear once that the negative adverb that obligatory participates in sentential negation takes over the dominant role, the preverbal negative marker is no longer needed to express negation, and therefore it disappears gradually. The atypical behaviour of the preverbal negative marker in subordinate clauses will be discussed in chapter 8.

16th and 17th century Dutch still exhibits Embracing Negation, but allows for instances of a single negative adverb *niet* as well. First these instances occur only in special context (subordinate clauses, V1, V2 under inversion), but gradually this way of expressing negation becomes standard. At the end of the 17th century the preverbal

negative marker is almost completely gone in Holland Dutch. Note that this is not the case for Brabant Dutch or Flemish, where this development takes a longer period, probably due to sociolinguistic motivations.

4.3.2   Negative Concord in 16th and 17th century Dutch

The question is whether 16th and 17th century Dutch still exhibited NC. Obviously this is the case when the optional preverbal negative marker is present. In those cases negation is manifested twice in the morpho-syntax, but only once present in the semantics. Some typical examples can be shown from Vondel's play *Gysbrecht van Aemstel* from 1638. In this text Vondel uses both the Embracing Negation construction and single negative adverbs or n-words. As the text is on meter, it is conceivable that Vondel included the preverbal negative marker for prosodic purposes.

(56)   a.   De krijgslien zijn *niet* veer van deeze kloosterpoort[150]   1638 Dutch
               The warriors are not far from this monatry.gate
               'The warriors are not far from the monastry's gate'
        b.   Zoo veele moeite *en* is het leven my *niet* waerdigh[151]
               So much effort neg is the life me not worthy
               'Life is not worth that much trouble for me'

(57)   a.   Maer *niemant* gaf gehoor[152]   1638 Dutch
               But n-body gave obeying
               'But nobody obeyed'
        b.   Dat *niemant* zich het woên der vyanden *en* kreunde[153][154]
               That n-body SE the raging of.the enemies neg moaned
               'That nobody cared about the raging of the enemies'

The example in (57)b indicates that 16th and 17th century Dutch exhibit Negative Concord, but these examples are rare. Two explanations account for this. First, most NC expressions consist of a negative marker and an n-word. As the negative marker tends to lose force, the frequency of NC examples decreases. Though one may still expect NC in cases in which two n-words or the negative adverb and an n-word co-occur. The following examples demonstrate that this is indeed the case.

---

[150] Gysbrecht IV: 1038.
[151] Gysbrecht IV: 955.
[152] Gysbrecht V: 1368.
[153] Gysbrecht V: 1410.
[154] This is an example in which the absence of *en* would break the meter. Saving meter is probably the primary reason the include this negative marker in this line.

(58)   s'Ondeckt het *niemand niet*[155]   1628 *Dutch*
        She'tells it n-body neg
        'She doesn't tell anybody'

(59)   Hy vreesde Herkles knods *noch* Samsons vuisten *niet*[156]   1638 *Dutch*
        He feared Hercules' spadix nor Samson's fists.
        'He feared Hercules spadix nor Samson's fists'

(60)   Zulcx *en* heeft *noyt niet* ghebleken[157]   1579 *Dutch*
        Such neg has n-ever neg appeared
        'Such has never appeared (to be the case)'

(61)   Om *niet* al levendigh en versch te zijn verslonden   1638 *Dutch*
                Van hem, die op zijn jaght *geen* aes *en* had gevonden[158]
        In order neg PRT too alive and fresh to be devoured
                By him who on his hunt no lure neg has found
        'In order not be devoured fresh and alive
                by him who didn't find any lure while hunting'

16th And 17th century Dutch also exhibits Paratactic Negation, as becomes clear from
the following examples.

(62)   Uit vreeze dat de Staet *niet* strande, en ga te gront[159]   1646 *Dutch*
        Out.of fear that the state collapse.CONJ, and goes to ground
        'Out of fear that the state will collapse and topples down'

(63)   Van vreeze datze *niet* wierd nae haer dood mishandelt[160]   1620 *Dutch*
        Out.of fear that.she neg becomes after her dead molested
        'Out of fear that she will be molested after her death'

Thus, 16th and 17th century Dutch is an NC language, although the preverbal negative
marker is only optionally available.

The role of the negative adverbial marker in 16th and 17th century Dutch is distinct
from Middle Dutch. In Middle Dutch the negative adverb was free to participate in
NC relation, regardless of its position with other n-words in the clause. In 16th and
17th century *niet* is only allowed to participate if it follows all other n-words as (60)
proves, or as follows from the fragmentarian answer in (64).

---

[155] Hypolitus III.
[156] Gysbrecht V: 1316.
[157] Katholiek spotgedicht op Oranje en zijn godsdienstvrede.
[158] Gysbrecht I: 13-14.
[159] Maria Stuart: III (cited in Van der Wouden 1994b).
[160] Hierusalem verwoest IV: 1878 (cited in Van der Wouden 1994b).

(64)   Heefter *niemant* de dief esien? *niemant niet*?[161]   1617 Dutch
         Has.there n-body the thief seen? N-body neg?
         'Did anybody see the thief? Nobody?'

Once that the negative adverb *niet* precedes an n-word, the negative adverbial marker blocks NC readings, as follows from (65), where three n-words in fact exhibit two negations in the semantics.

(65)   dat *niet* allen *noyt geene* bochten off cromten […]   1630 Dutch
               en sullen worden bevonden[162]
         that neg only n-ever no curves or bends neg will be found
         'that not only never any curve or bend may be found'

However, the example in (66) shows that a negative subject that is followed by the negative adverb gives also rise to a Double Negation reading. This example can be considered an indication that 16th and 17th century Dutch is less tolerant with respect to NC constructions than previous stages of the language.

(66)   *Niemant* […] *niet en* murmureert[163]   1600 Dutch
         N-body neg neg complains
         'Nobody does not complain'

Hence, although 16th and 17th century Dutch lacks the obligatory presence of a preverbal negative marker, it remains an NC language that behaves similar to Middle Dutch: it allows clause-bounded NC only and it allows Paratactic Negation. Contrary to Middle Dutch, 16th and 17th century Dutch does not allow for NC with n-words following the adverbial negative marker *niet*.

4.3.3   Negative Imperatives in 16th and 17th century Dutch

V1 contexts are sensitive to *en*-deletion. As is shown in the tables in (54)-(55) Holland Dutch does not exhibit any imperatives with a preverbal negative marker *en/ne* in the 17th century and Brabant Dutch expresses imperatives with single *niet* only in the second half of the 17th century, according to the sample of texts that Burridge (1993) based her analysis on. Imperatives in this stage of the language can have two forms: singular imperatives are similar to the verbal stem and plural imperatives have a suffix *–t*. Since Old and Middle Dutch did not ban true negative imperatives, it is unlikely that 16th and 17th century Dutch all of a sudden would forbid these constructions to appear. This expectation is born out: we find examples of

---

[161] Warenar: 1051.
[162] Contract between Claes en Frans Dirksz with the city of Amsterdam
(http://www.amsterdamsebinnenstad.nl/binnenstad/lamp/deotter.html).
[163] Van Sinte Niemant: 155.

singular and plural imperatives both with and without the preverbal negative marker *en/ne*.

Negative imperatives with a preverbal word occur rather frequently in 16th and 17th century Dutch, but in many cases it is unclear whether *en* is a negative marker, or a coordinator. The following example e.g. can be interpreted in two ways.

(67)   Schep moed, *en* wanhoop *niet*[164]   1638 Dutch
        Create courage, and/neg despair neg
        'Create courage, (and) don't despair'

(68)   Noch *en* laet myn ziele van u *niet* vlien[165]   1603 Dutch
        Nor neg let my soul of you neg flee
        'Nor let my soul not flee away from you'

(69)   a.   Roept *niet* luid[166]   1638 Dutch
              Call.IMP.PL neg loudly
              'Don't shout'
        b.   Doet duecht ende *en* roept *niet* cras cras[167]   1524 Dutch
              Do.IMP.PL virtue and neg call.IMP.PL neg cras cras
              'Be honourable and don't say "cras cras"'

Given the presence of imperatives that are still preceded by a preverbal negative marker *en*, it is safe to conclude that there is indeed no ban on negative imperatives in Middle Dutch regardless of the choice of the negative marker.

4.3.4   Universal subjects and negation in 16th and 17th century Dutch

The final question to be addressed in this section is the interpretation of universal quantifying subjects that are followed by a negative marker. Again, as was the case with Middle Dutch, this is hard to investigate for previous stages of the language, since contexts often do not disambiguate these sentences. Still, I found several examples that prove that 16th and 17th century Dutch allows for inverse scope readings, in which the negation scopes over the universal quantifier.

(70)   Al dat waggelt, *en* valt *niet*[168]   1657 Dutch
        All that waddles, neg falls neg
        'Not everything that waddles falls'

---

[164] Gysbrecht V: 1855.
[165] Het prieelken der geestelijken wellusten: 79-12.
[166] Gysbrecht II: 501.
[167] Refreynen int sot amoureus wijs: 45.
[168] Banket-werk van goeden gedachten: XVI.

That this is not a single instance of this construction can be seen in the following example in 18th century Dutch, in which the quantifier *geen* 'no' scopes over the universal quantifier *al*.

(71) Ja, 't is al *geen* goud dat er blinkt   1784 Dutch
        Yes, it is all no gold that there glitters
        'It is not all gold that glitters'

On the basis of these few examples I conclude that 16th and 17th century Dutch at least allowed for inverse scope readings in sentences with a negative marker and a universal quantifier subject.

4.3.5   Concluding remarks

16th and 17th century Dutch does not have an obligatory preverbal negative marker and allows sentential negation to be expressed by means of a single negative adverb. The disappearance of the preverbal negative marker starts in subordinate clauses, and then takes place in V1 and V2 contexts (under inversion). After that, normal V2 S-V orders allow *en*-deletion. When matrix clauses hardly show examples of the preverbal negative marker *en/ne*, it shows up again in subordinate clauses. Finally around the end of the 17th century the preverbal negative marker is completely gone.
16th and 17th century Dutch also exhibit NC, which is clause-bound except for cases of Paratactic Negation. Contrary to Middle Dutch, 16th and 17th century Dutch does not allow the negative adverb to participate in NC relations, unless it is the final negative element in the concord chain.
There is no ban in 16th and 17th century Dutch against negative imperatives, regardless of the choice for the negative marker (Embracing Negation or a single negative adverb).
Finally, there is no general ban either on negation that scopes over universal quantifier subjects in the case of the subjects preceding the negative marker at surface structure.

4.4   Negation in Modern Dutch

In this section I will compare the results that have been found for the historical stages of Dutch with the contemporary situation. Therefore the four different topics that have been investigated for Old Dutch, Middle Dutch and 16th and 17th century Dutch, will now be investigated for both Standard and non-Standard Modern Dutch. The situation for Standard Modern Dutch is not very complicated, although it differs crucially from older stages of Dutch with respect to some phenomena. However, in this section I will also discuss dialectal variation with respect to negation. We will see that many Flemish dialects show a large range of variation in the way negative expressions are expressed or interpreted and sometimes behave more on a par with Middle Dutch or 16th and 17th century Dutch than with Standard Modern Dutch.

The data that are used in this section come from the database that forms the basis of the Syntactic Atlas of Dutch Dialects (SAND) (see also section 1.2). During this project, fieldwork was done in 267 different places in the Netherlands, Belgium and France. The study presented here reflects the range of variation that has been found with respect to negation.

Since this section represents a corpus that contains data from 267 different dialects it is virtually impossible to present an overview here of all dialectal differences. Therefore I focus first on those dialects that still exhibit Jespersen Phase IV behaviour. It will turn out that there are three classes of Dutch dialects that do so. After that I will check whether these dialects exhibit NC, and if so what kind of NC, and I will compare this result with other varieties of Modern Dutch. It will turn out that although Modern Dutch varieties can be divided in NC and non-NC dialects, the dialects that are Phase IV all exhibit NC. I will then look at the occurrence of negative imperatives, both for Phase IV varieties and Phase V varieties, and I will conclude that there is no ban on negative imperatives in Modern Dutch and finally I will look at the interpretation of sentences that have a universal quantifier subject followed by a negative marker. I will show that the set of languages that are able to assign an inverse reading to such sentences form a superset of the set of NC varieties.
This method makes it possible to provide a coherent overview of the range of dialectal variation with respect to the expression of negation and to draw correct generalisations on the basis of Dutch microvariation.

In subsection 4.4.1 I will discuss the variation in Modern Dutch with respect to the way sentential negation is expressed. In subsection 4.4.2 I will discuss which varieties of Dutch exhibit NC and to whether this form of NC is different from the ones that we explored in the previous sections. In 4.4.3 I will discuss the presence of negative imperatives in Dutch dialects and in 4.4.4 I will discuss the interpretation sentences with a universal quantifier subject that are followed by a negative marker. 4.4.5 contains some concluding remarks.

4.4.1   Negative Markers in Modern Dutch

In this subsection I will discuss the variety that Modern Dutch exhibits with respect to the expression of sentential negation. Standard Dutch uses a negative adverb *niet* that occupies the same position as in the older varieties of Dutch (to the right of V_{fin} in V1 and V2 contexts and to the left of the verb in subordinate clauses).

(72) a. Jan loopt *niet*   Standard Dutch
          Jan walks neg
          'Jan walks'
     b. …dat Jan *niet* loopt
          that Jan neg walks
          '… that Jan walks'

c. *Loopt* Jan niet?
Walks Jan neg?
'Doesn't John walk?'

However, we see that many dialects, especially from Flanders, have other means of expressing negation at their disposal. Several dialects have not made the transit from Phase IV to Phase V of the Jespersen Cycle (yet) and do not only express sentential negation by means of a negative adverb, but also allow for an optional additional preverbal negative *en/ne*, comparable to the 17th century dialects of Holland Dutch. A map of places where these dialects are spoken is in (73) below.

(73)   Map of places with dialects that still allow for an optional preverbal negative marker *en/ne* are spoken.
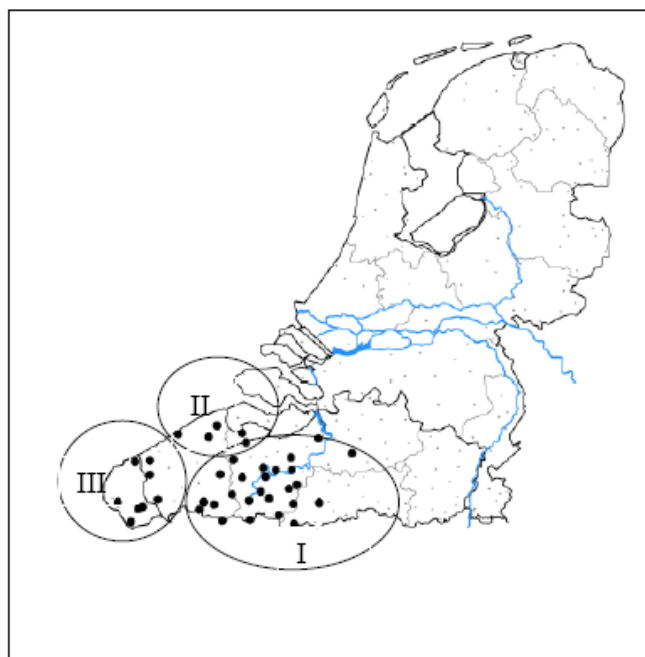
In sum 40 different dialects exhibit this pattern, all located in the southwestern part of the Dutch language area. Three areas can be distinguished where Embracing Negation still takes place: (I) East Flanders where the majority of Phase IV dialects has been found (74)-(75); (II) Northern West Flanders[169] (76)-(77) and (III) French Flanders (including some border dialects in Southern West Flanders) in the extreme south west of the Dutch language area, in which the original Dutch dialect is highly influenced by

---

[169] Although West Flemish has featured as the prototypical variety of Dutch that still exhibits Phase IV behaviour (cf. Haegeman 1995, Zanuttini & Haegeman 1996), it turns out that preverbal *en* has almost completely disappeared from this area.

French; In all three areas the preverbal negative marker is optionally present, which means that apart form Embracing Negation examples, negative sentences with single *nie(t)* are also available.

(74) a. Ik *en ga* nie naar t school   Berlare
           I neg go neg to the school   (East Flemish)
           'I don't go to school'
    b. Pas op dage *nie en* valt
           Look out that.you neg neg fall
           'Make sure you don't fall'

(75) a. Da vinnek ook *nie*   Berlare
           That find.I too neg
           'I don't find that either'
    b. Ge weet toch ook da't *nie* plezant is
           You know PRT too that.it neg pleasant is
           'You know too that it is not pleasant'

(76) a. Ze *en* weet da *niet*   Oostkerke
           She neg knows that neg   (West Flemish)
           'She doesn't know that'
    b. Past op daje *nie en* valt
           Look out that.you neg neg fall
           'Make sure you don't fall'

(77) a. Ze weet nog *nie* da Marie gisteren dood is   Oostkerke
           She knows yet neg that Marie yesterday dead is
           'She doesn't know yet that Marie died yesterday'
    b. K geloven dajgie zo slim *nie* zijt of wiedre
           I believe that.you so smart are as we
           'I believe that you are not as smart as we are'

(78) a. Neeneenk k*en*zijn de moeder *nie*   Ste Marie-Chapelle
           No.no.I I.neg.am the mother neg   (French Flemish)
           'No, no. I am not the mother'
    b. Noes mepeizen dajgie zo boos *nieë*zijt of wieder
           We believe that.you so angry neg.neg.are as we
           'We believe that you aren't as angry as we are'

(79) a. E klapt *nie* wel Frans   Ste Marie-Chapelle
            He speaks neg good French
            'He doesn't speak French well'
    b. Kpeizen dat*nie* morgen goa komn
           I.think that.he.neg tomorrow goes come
           'I think that he will not come tomorrow'

Both in West Flemish and East Flemish the participation of the preverbal negative marker in negative sentences is restricted to V2 main clauses and subordinate clauses. In French Flanders the preverbal negative marker is also allowed in V1 contexts, though the only available data are from negative imperatives, and therefore these data will be presented and discussed in section 7.3. Another observation is that the majority of negative constructions in French Flanders still exhibits Embracing Negation, whereas the West and East Flemish examples lack Embracing Negation in most cases.

Hence one can observe that those Dutch dialects that still exhibit Embracing Negation reflect the pattern of *en*-deletion that has been found for 16th and 17th century Dutch, where the preverbal negative marker first ceased to exist in V1 contexts.[170] French Flemish proves to be more conservative than East Flemish[171], which on its turn is more conservative than the West Flemish dialects in which Embracing Negation has only been rarely found.

Still, this is not the only phenomenon that one can find in the range of variation of the usage of negative markers that Dutch dialects exhibit. In the rest of this section I will discuss another phenomenon, namely instances of single *en* in Modern Dutch Dialects. Although it is not possible to express sentential negation by means of a single preverbal negative marker, some conservative expressions still allow for it. The examples in (80) are short answers, and are probably expressions that have become lexicalised.

(80) a. IJ *en* doet   Berlare
          He neg does
          'He doesn't'
      b. K'*en* weet   Gent
          I.neg know   (East Flemish)
          'I don't know'

Preverbal negative markers may also still occur in sentences that are negatively connotated, e.g. by a semi-negative verb such as *twijfelen* 'doubt' or in the case of particles, such as *maar* or *juist* that indicate a speaker's negative attitude towards the contents of a proposition.

The distribution of this use of *en* is more widespread than the use of *en* as a participant in Embracing Negation. Not only can this usage be found in those dialects that exhibit Embracing Negation (81), it also occurs in dialects that do not allow the negative marker to participate in the expression of sentential negation (82).

---

[170] In some cases it is problematic to analyse possible occurrences of the preverbal negative marker *en*, as it has the same phonological form as the standard conjunction *en* 'and'.

[171] The question why French Flemish exhibits more cases of Embracing Negation remains open: either it could be that this is due to the influence of French, which also exhibits Embracing Negation. But it is also conceivable that this is a result of a stronger marking of the original French Flemish dialect against the dominance of French.

(81)   a.   K *en* e maar drie pillen   Berlare
             I neg have PRT three tablets
             'I have only three tablets'

       b.   T*en*is moa juste goed genoeg   Oostende
             It.neg.is prt prt gooed enough
             'It was just enough'

       c.   T*en* wos mo juiste genoeg   Ste Marie-Chapelle
             It.neg was PRT PRT enough
             'It was just enough'

(82)   a.   K *en* twijfele   Aalter
             I neg doubt   (East Flemish)
             'I doubt (it)'

       b.   K*en*ee moar drie spekken   Waregem
             I.neg,have just/only three candies   (East Flemish)
             'I only have three candies'

It is thus conceivable to think of this particular use of *en/ne* as a final stage of
Jespersen Phase IV, where single *en/ne* is hardly used to express sentential negation,
but where it still may be included in expressions that have a negative connotation.

4.4.2   Negative Concord in Modern Dutch

Whereas Middle Dutch and 17th Century Dutch (Van der Wouden 1995) exhibit NC,
it is known from chapter 3 that Standard Dutch is a Double Negation language.

(83)   … dat Jan *niet niemand* ziet   Standard Dutch
        … that Jan neg nobody sees
        '… that Jan doesn't see nobody' = 'that John sees somebody'

The results from the SAND fieldwork provide a richer and more fine-grained
overview of the distribution of NC in the Dutch language area. Moreover, it sheds
more light on the exact behaviour of NC in Dutch.

In this subsection I will first describe the occurrences of NC in those varieties of
Modern Dutch that allow for an (optional) preverbal negative marker. I will show that
the three varieties under discussion, East, West and French Flemish, indeed exhibit
NC. Then I will discuss different kinds of NC constructions that may or may not
appear in these varieties. I will finally show that NC is not restricted to those varieties,
but that many other varieties also exhibit NC.

East Flemish varieties exhibit NC relations between an n-word and the preverbal
negative marker (84)a, between an n-word and the negative adverbial marker (84)b or
between an n-word, the preverbal and the postverbal negative marker (84)c. Note

however that in all cases in which the adverbial negative marker enters an NC relation it follows any n-words. This fact is also known in West Flemish (Haegeman 1995), where constructions in which an n-word follows the negative adverbial marker are reported to be instances of Double Negation[172]. Finally, n-words can also participate in Negative Spread construction, in which no negative marker is involved (85).

(84)   a.   K *en* geef *niets* aan een ander   Berlare Dutch
            I neg give n-thing to an other
            'I don't give anything to another'
       b.   Dr wil *niemand nie* dansn
            There wants n-body neg dance
            'Nobody wants to dance'
       c.   K *en e niemand nie* gezien
            I neg have n-body neg seen

(85)   Dr zitten hier *nieveranst geen* muizen   Berlare Dutch
       There sit here n-where n- mice
       'There aren't any mice anywhere around'

Apart from these more 'standard' forms of NC, East Flemish dialects also show NC relations in which the adverbial negative marker occurs twice (86). In this case the first instance of *nie* is the marker of sentential negation, where the second *nie* marks the adverb *meer* 'more/anymore' for negation.

(86)   Jan (*en*) ee *nie* veel geld *nie* meer   Berlare Dutch
       Jan has neg much money neg more
       'Jan hasn't much money anymore'

In order to determine whether these East Flemish dialects are Strict or Non-Strict NC varieties, both the combination between a negative subject in preverbal position and a preverbal negative marker and between the subject and a negative adverb should be investigated. It turns out that East Flemish dialects allow for both NC relations, although some informants judged the NC relation between a negative subject and the preverbal negative marker as archaic.

(87)   a.   *Niemand en* eet dat ooit gewild of gekund   Beverle Dutch
            N-body neg has that ever wanted or can.PERF
            'Nobody ever could or wanted to do that'

---

[172] Haegeman (1995: 142) provides the following minimal pair from West Flemish:

    (i)   … da Valère van *niemand nie* ketent *(en)* is
             … that Valère of n-body neg pleased neg is
             NC: 'that Valère is not pleased with anyone'
    (ii)   … da Valère *nie* van *niemand* ketent *(en)* is
             … that Valère neg of n-body pleased neg is
             DN: 'that Valère is not pleased with no one'

     b.   Ik peis dat *niemand nie* gezien ([%]*en*) eet   Berlare Dutch
            I think that n-body neg seen has
            'I think nobody saw (it)'

The number of instances of Paratactic Negation in the NC varieties is smaller. Only in the southern East Flemish dialects examples of Paratactic Negation have been found. In these cases a comparative in the matrix clause licensed the presence of a preverbal negative marker in the subordinate clause that does not contribute to the negative semantics. As comparative constructions are also known to participate in NC relations in other languages (cf. Herburger 2001), and can be analysed as semi-negatives because of their monotonic properties (Van der Wouden 1994a) or semantic decomposition (cf. Von Stechow 1984, Kennedy 2001), these instances can be considered as a form of NC.

(88)   IJ is veel leper of datrij uit *en* ziet   Strijpen Dutch
        He is much smarter if that.there.he PART neg looks   (East Flanders)
        'He is much smarter than he looks like'

West Flemish dialects that still allow an optional preverbal negative marker resemble East Flemish dialects to a large extent with respect to the expression of NC. N-words are allowed to show Negative Spread with both the preverbal negative marker the negative adverb or with both[173] (89). Negative Doubling and NC relations with *nie meer* 'not anymore' phrases are also allowed.

(89)   a.   *Je*n*hoort da niemer'*   Oostende
            You.neg.hear that n-ever   (West Flemish)
            'You don't ever hear that'
     b.   K geloof dak *niemand nie* gezien e   Oostkerke Dutch
            I believe that.I n-body neg seen have
            'I believe that I didn't see anybody'
     c.   …da Valère van *niemand nie* ketent *en* was   West Flemish[174]
            … that Valère of n-body neg pleased neg was
            '… that Valère wasn't pleased with anyone'

(90)   Zitn dr ier *nieverans geen* muizen binn   Oostkerke Dutch
        Sit there here n-where n- mice
        'There aren't any mice anywhere around'

(91)   Asset azo voort doet zalt *nie* lange *nie* mee trekn   Oostkerke Dutch
        If.he so further does will.he neg long neg more pull
        'If he continuates (his behaviour), he won't live long'

---

[173] The SAND fieldwork did not show any combinations of combinations of *en*, *nie* and an n-word in the West Flemish dialects. However, the informants did not reject these examples either. Moreover, many of such examples have been reported in the literature (cf. Haegeman 1995).
[174] Taken from Haegeman 1995: 142.

West Flemish differs from East Flemish in the sense that West Flemish also allows the *not A no N* construction. Here a combination of negative marker on top of an AN construction establishes an NC relation with the n-word *geen* 'no' (92) that may intervene between A and N.[175]

(92)   a.   E klap *nie* goed *geen* Frans   Oostkerke Dutch
            He talks neg good n- French
            'He doesn't speak any good French'
       b.   Tleevn *nie* vele *geen* mensn meer van de boerenstiel
            It.live neg many neg people more of the farm
            'Not many people make a living from farming'

The question whether West Flemish is a Strict or Non-Strict NC languages is not straightforward. It is known from the literature that the negative subject is not allowed to occur in sentence-initial position. However, this is a consequence of a general rule in West Flemish that obliges indefinite expressions to form an existential *there* construction and therefore bans indefinites to occur in sentence-initial position.

(93)   a.   *…da nen student da gezeid eet   West Flemish[176]
            … that a student that said has
            '… that some student said that'
       b.   Datter nen student da gezeid eet
            That.there a student that said has
            'That some student said that'

(94)   a.   *… da *niemand* dienen boek gelezen eet   West Flemish[177]
            … that n-body that book read has
            '… that nobody read that book'
       b.   … datter *niemand* dienen boek gelezen eet
            … that.there n-body that book read has
            '… that nobody read that book'

Hence, the ban on n-words in the canonical subject position is not related to the question whether the variety exhibits Strict or Non-Strict NC. The question is then whether a negative subject followed by a negative marker in a *there* construction is allowed or not. It is shown in (95) that in West Flemish dialects both negative markers may follow the negative subject.

---

[175] This construction has first been observed by Vanacker (1975) and has been discussed in Haegeman (2002) for French Flemish dialects.
[176] Data from Haegeman & Zanuttini: 126.
[177] Data from Haegeman & Zanuttini: 126-7.

(95)   a.   T*n*wil *niemand* dansn   Oostende Dutch
            It.neg.wants n-body dance
            'Nobody wants to dance
       b.   T wil *niemand nie* dansen   St Laureins Dutch
            It wants n-body neg dance
            'Nobody wants to dance'

A crucial difference between West and East Flemish dialects is that the group of West Flemish dialects does not exhibit Paratactic Negation. In the SAND fieldwork these examples have actively been triggered, without any response, and in several cases informants have judged these examples as ill-formed. Haegeman (1995: 161, p.c.) also reports these constructions to be unwellformed (96): The single expletive *en* may not give rise to PN constructions and if both negative markers occur a subordinate clause a DN reading is yielded. Therefore I conclude that Paratactic Negation is not allowed in West Flemish.

(96)   a.   *Kvrezen da Valère en komt   West Flemish
            I.fear that Valère neg comes
            'I am afraid that Valère comes'
       b.   Kvrezen da Valère nie en goa kommen
            I.fear that Valère neg neg go come
            'I am afraid that Valère won't come'

The third group of dialects under investigation are the French Flemish varieties. These varieties exhibit NC, mostly in the same way as the West and East Flemish varieties. French Flemish can establish Negative Spread between the preverbal negative marker and n-words, or Negative Doubling relations between two n-words (97). French Flemish allows for *not … not more* construction and the *not A no N* construction as well, and even allows quantifiers, such as *veel* 'much/many' to occupy the position of the adjective (98).

(97)   a.   K*en*e *niemand* ezien   Ste Marie Chapelle
            I.neg.have n-body seen
            'I didn't see anybody'
       b.   Marie e bezien van *geen* zeer te doen egen *niemand*
            Marie has tried of no pain to do against n-body
            'Mary didn't try to hurt anybody'

(98)   a.   Ega *nie* lange *nie* meer leevn   Ste Marie Chapelle
            He.goes neg long neg more live
            'He won't live long anymore'
       b.   Ie *e*klapt *nie* wel *geen* Frans
            He neg.talks neg PRT n- French
            'He doesn't speak good French'

     c.   Jean ene *nie* veel *geen* geld
          Jean neg.has neg much money
          'Jan doesn't have much money'

Although the constructions in (98) seem to allow NC relations in French Flemish in which the adverbial negative marker *nie* occurs, French Flemish speakers only marginally accept other cases in which an n-word is in NC relation with the adverbial negative marker. Informants reject cases in which an n-word in object position is followed by a negative marker by offering translations in which the negative adverb is lacking. Moreover, while determining whether French Flemish exhibits Strict or Non-Strict NC, it turns out that subject n-words are allowed to be followed by a preverbal negative marker, but the negative subject is only accepted marginally if it is followed by *nie* (99).

(99)   a.   *Niemand en*èèt dat newild   Ste Marie Chapelle
           N-body neg has that wanted
           'Nobody wanted that'
     b.   T*en*wil *niemand* (${}^{?}$*nie*) dansen
           It.neg.wants n-body neg dance
           'Nobody wants to dance'

Apparently French Flemish does not seem to allow constructions in which the negative adverb *nie* follows one or more n-words. Note that this is reminiscent of Standard French. Under this assumption one can conclude that French Flemish is Strict NC: it allows constructions in which a negative marker follows the negative subject. Cases in which this is unacceptable are ruled out for other reasons.

Finally, French Flemish shows Paratactic Negation. In the matrix verb *twijfeln* 'doubt' allows for both negative markers in the subordinate clause, although these markers do not contribute to the negative semantics of the sentence.

(100)   Ktwijfeln atn *nieën*gaat doen   Ste Marie Chapelle
       I.doubt that.he neg.neg.goes do
       'I doubt he'll do it'

To conclude, all three dialects groups that have a preverbal negative marker also exhibit NC, though there are some minor differences. Thus so far we partially succeeded our task to find any correspondences between the status of the negative marker and the exhibition of NC. It turns out that all Dutch varieties that have an (optional) preverbal negative marker also show NC behaviour. Recall that this observation was also made when describing diachronic variation.
The question then rises whether this generalisation is uni-directional or bi-directional. In order to answer this question it suffices to see whether there are other NC varieties in Modern Dutch. As there is no preverbal negative marker left in those varieties, the only two NC options are Negative Doubling (two n-words) and Negative Spread (n-

word + adverbial negative marker). A picture of dialects in which at least one of these
is accepted can be found in (101).

Roughly speaking, in almost every Flemish variety NC is available, as well as in
many of the other Belgian dialects. In the Netherlands some of the Brabant and
Limburg Dutch dialects also show NC, and NC is found in a few Frysian dialects and
in several dialects from Twente Dutch (in the eastern part of the country). I include
examples of NC (both negative Spread and Negative Doubling, if present) in those
dialects below.

(101)   NC dialects in Modern Dutch
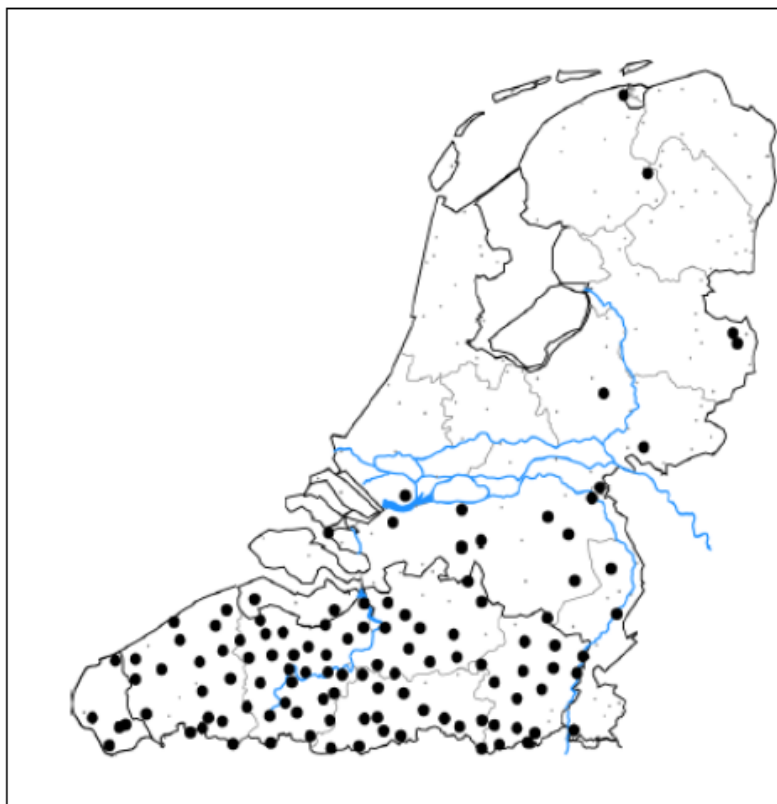
A question might be whether these examples are not instances of Emphatic Negation.
Although the borderline between NC and EN is not always sharp, the choice of
sentences was such that the examples are non-emphatic. E.g. the construction *there
wants nobody not dance* is not emphatic, since the *there is* construction generally does
not invite emphatic elements (which tend to occupy a sentence-initial position under
topic or focus). Other examples, such as *nowhere no friends* (104), were in fact
translations of single negation sentences in the input '*everywhere no friends*'.

(102) a. Ie wil *nievers nie* dansn   Hertsberge
There wants n-body.neg dance   (West Flemish)
'Nobody wants to dance'
b. Ie wil *geen* soepe *nie* meer eetn
He wants n- soup neg more eat
'He doesn't want to eat any soup anymore'

(103) a. Doe wil *niemandni* danse   Leuven
There wants n-body.neg dance   (Brabant (B) Dutch)
'Nobody wants to dance'
b. Haa wil *geen* soep *ni* mie ete
He wants n- soup neg more eat
'He doesn't want to eat any soup anymore'

(104) a. Der wil *niemanni* danse   Houthalen
There wants n-body.neg dance   (Limburg (B) Dutch)
'Nobody wants to dance'
b. Hiet *nergens gee*n vrienden
He.has n-where neg friends
'He hasn't any friends anywhere'

(105) a. Der wil *niemand nie* danse   Vorstenbosch
There wants n-body neg dance   (Brabant (N) Dutch)
'Nobody wants to dance'
b. Hij heef *nerges geen* vriende
He.has n-where neg friends
'He hasn't any friends anywhere'

(106) a. Der wil *niemand niet* danse   Meterik
There wants n-body neg dance   Limburg (N) Dutch
'Nobody wants to dance'
b. Hi het *nergens geen* vriende
He.has n-where neg friends
'He hasn't any friends anywhere'

(107) a. Der wol *net* ien *net* dansje   Anjum
There wants neg one neg dance   Frysian
'Nobody wants to dance'
b. Zitte hjir *nergens gjin* muizen?
Sit here n-where n- mice
'Are there any mice around here'

(108) a. Der wil *geen* een *nich* danse   Rossum
There wants n- one neg dance   (Twente Dutch)
'Nobody wants to dance'

  b. Hij wil *geen* soep *niet* meer etn *niet*   Almelo
      He wants no soup neg more eat neg   (Twente Dutch)
      'He doesn't want to eat anymore soup'

As follows from the examples, Modern Dutch NC is subject to variety. E.g. sentence-final negation has only been observed in Twente Dutch[178,179], whereas NC is generally rare in these varieties. An investigation of the exact difference between all varieties of Dutch that exhibit NC is subject of further research and beyond the scope of this study, as its primary objective is to find correlations between different phenomena in the field of negation.

The conclusion of this subsection is thus that the relation between the status of the negative marker and the occurrence of NC is uni-directional: all dialects that have a preverbal negative marker exhibit NC, whereas not every NC dialects allows for an (optional) preverbal negative marker.

4.4.3   Negative Imperatives in Modern Dutch

Negative imperatives are not problematic in any Phase V dialect. In Standard Dutch, negative imperatives consist of an imperative in V1 position followed (not necessarily immediately) by a negative adverb.

(109)   Vertel maar *niet* wie ze had geroepen   Standard Dutch
        Tell PRT neg who she had called
        'Don tell who she called'

There is no relevant variation with respect to this construction amongst the different Dutch varieties. Hence the only domain in which relevant variation may be expected is the domain of Phase IV dialects. The question is then, is there a ban on true negative imperatives in the West Flemish, East Flemish and French Flemish dialects that still allow for an (optional) preverbal negative marker.

(110) a.   Vertel mo *nie* wien dassezie a kunn roepn   Oostkerke
            Tell PRT neg who that.she had can call
            'Don't tell who she could have called'
       b.   Vertel maar *nie* wie dassezij ou kunne roepn   Berlare
            Tell PRT neg who that.she had can call
            'Don't tell who she could have called'
       c.   *En*zeg *niet* wien dase gonk wiln roepn   S[te] Marie Chapelle
            Neg.tell neg who that.she go want call
            'Don't tell who she wanted to call'

---

[178] Cf. Pauwels 1959 who observed similar phenomena in e.g. Aalst Dutch.
[179] Note that this pattern seems to be similar to the pattern in Afrikaans in which sentence-final negation is highly frequent.

French Flemish allows for true negative imperatives. There are no instances found of negative imperatives in West Flemish or East Flemish. Although West Flemish informants strongly reject examples such as (110), Haegeman (1995) reports cases in which they are accepted (111).

(111) a. *En* doet da *nie*   West Flemish
           Neg do that neg
           'Don't do that'
       b. *En* zegt dat an *niemand*
           Neg say that to n-body
           'Don't tell anybody'

The absence of examples as in (111) in East/West Flemish is in line with another generalisation, namely the absence of the preverbal negative marker in V1 context. Apparently there is variation amongst speakers of West Flemish with respect to the possibility of the preverbal negative marker to occur in V1 contexts.

This picture corresponds with the general picture of *en*-deletion that shows that the preverbal negative marker disappears completely in V1 contexts, before disappearing in (non-topicalised) V2 contexts and subordinate clauses.

The absence of negative imperatives in these cases is not the result of a ban on negative imperatives, but a consequence of the process of *en* deletion that is going on in these varieties.

4.4.4   Universal subjects and negation in Modern Dutch

The question what the interpretation in different Dutch dialects is of sentences containing of a universal subject followed by a negative marker, is hard to test in fieldwork, as informants find judging these examples quite hard. However, many informants accepted the sentence *iedereen is geen vakman* 'everybody is not an expert', which has a reading $\forall > \neg$ in Standard Dutch, in their dialects under the inverse reading ($\neg > \forall$).

(112) Iedereen is geen vakman   Dutch
       Everybody is no expert
       $\neg > \forall$: 'Not everybody is an expert'
       $\forall > \neg$: 'Nobody is an expert'

The map in (113) shows that in many dialects this inverse reading is accepted. More importantly, all dialects that exhibit NC also allow for this reading, whereas only a part of the non-NC dialects allowed for this construction under the inverse reading, again pointing at a uni-directional relation between NC and the interpretation of sentences with a universal quantifier subject followed by a negation.

For now, it suffices to conclude that the inverse readings in these constructions are widespread amongst Dutch varieties and always possible in the NC dialects. It should however be acknowledged that the map in (113) may be subject to minor changes after a closer examination of the facts, as this construction is harder to test than the constructions in previous sections.

(113)   Dialects that allow inverse readings of the interpretation of sentences with a universal quantifier subject followed by a negation.
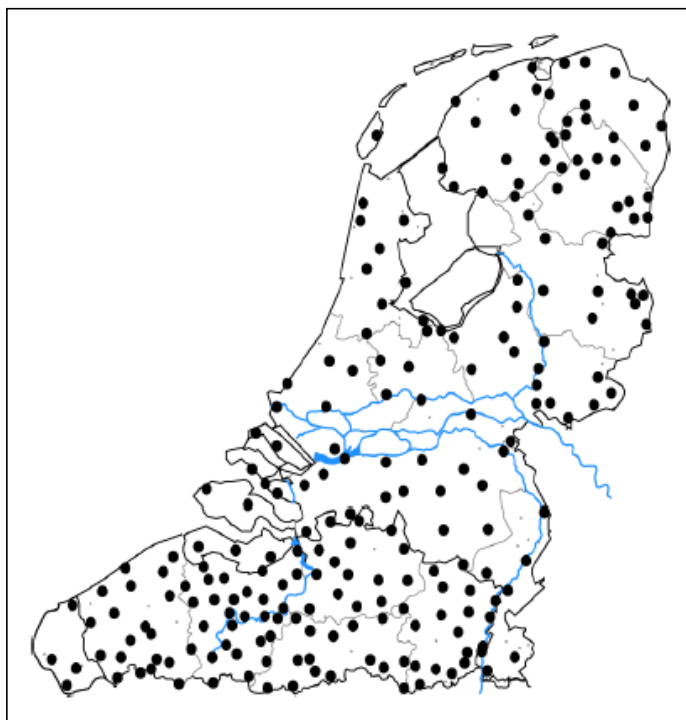
4.4.5   Concluding remarks

It becomes clear from the SAND fieldwork that Modern Dutch shows variety with respect to all four topics that have been investigated. Although every variety of Dutch uses the adverbial negative marker to express negation, West Flemish, East Flemish and French Flemish exhibit Jespersen Phase IV behaviour. In some other dialects the preverbal negative marker is not used anymore to express sentential negation, but can still be used in a pleonastic sense.

It turns out that all these phase IV dialects also exhibit NC, but the distribution of NC is not restricted to those dialects. Many other varieties, both from the Netherlands and from Belgium, are NC varieties too. All these varieties proved to be Non-Strict NC varieties. In this study subtle differences between the different NC varieties were found, such as the occurrence of Paratactic Negation and the possibility of the so-called *not A/Q no N* construction.

Modern Dutch does not know any ban on negative imperatives, although West and East Flemish Phase IV dialects do not allow the preverbal negative to occur in imperatives. This is however due to the fact that this marker does not occur in V1 contexts anymore, a natural stage in the process of *en*-deletion.

Finally the research indicated that inverse readings of constructions in which a universal quantifier subject was followed by negative marker are widespread under Modern Dutch varieties, including all varieties that exhibit NC.

4.5   Conclusions

The general aim of this chapter was to find any correspondences between the four phenomena under study: (i) the way sentential negation is expressed; (ii) the interpretation of multiple negation (Double Negation or NC, and if NC what kind of NC); (iii) the occurrence of true negative imperatives; and (iv) the interpretation of sentences in which a universal quantifier subject is followed by a negative marker.

The results of this chapter are summarised in the following table.

(114)   Variation with respect to negation in Dutch

Phase	NC	PN	¬>∀	NegImp	Varieties:
I / II	+	?	?	+	*Old Dutch*
III	+	+	+	+	*Middle Dutch*
IV	+	+	+	+	*16th and 17th Century Dutch*
IV	+	+	+	+	*French Flemish*: Ste Marie Chapelle
IV	+	+	+	+	*East Flemish*: Berlare
IV	+	-	+	+	*West Flemish*: Oostende
V	+	-	+	+	*Most southern Varieties*: map (101)
V	-	-	+	+	*Most varieties*: map (113)
V	-	-	-	+	*Standard Dutch*

On the basis of (114) the following generalisations can be formulated:

- Every variety that has an (optional) preverbal negative marker in order to express sentential negation is an NC variety; not every variety that exhibits NC has a preverbal negative marker at its disposal.
- Not every NC variety allows for Paratactic Negation. Every variety that exhibits Paratactic Negation is an NC variety[180].
- Every NC variety allows for inverse readings of sentences with a universal quantifier subject followed by a negation; not every variety that allows for inverse readings of sentences with a universal quantifier subject followed by a negation exhibits NC.
- Dutch does not know any ban on true negative imperatives.
- Every Dutch NC variety is a Non-Strict NC variety.

These generalisations will form the input for the analyses in the coming chapters. However, whether the correspondences that have been described are also valid for other languages, or whether they only hold for Dutch, has to be checked first. Moreover, as Dutch does not exhibit Strict NC or a ban on negative imperatives, it should be investigated for other languages whether these two phenomena are related to the other phenomena. Finally, the majority of Dutch variations under study proved to be Phase IV or Phase V varieties. Therefore a closer look at the behaviour of Phase I, Phase II and Phase III languages is required. In order to fulfil these requirements these generalisations will be checked against a set of 25 languages in the next chapter.

---

[180] The second part of this generalization follows from the definition of Paratactic Negation.

5   Typological checking

The central objective of this chapter is to check the correctness of the generalisations put forward in the final section of the previous chapter. This is necessary for two reasons: (*i*) not every phenomenon under research has been covered by the data in Dutch, e.g. the data from Old Dutch are by far insufficient to develop an elaborate analysis about Phase I languages. Therefore additional material from other languages is needed in order to complete the picture; (*ii*) those phenomena that are well-captured by the Dutch data give rise to generalisations. However, it is not excluded that these generalisations are restricted to Dutch language-internal variation. The goal of this study is to investigate whether the generalisations that hold for Dutch also hold for a larger domain of languages, in principle those languages that express sentential negation by means of a negative marker (cf. chapter 3.3.2). Hence the results of the Dutch microtypological study need to be checked against a set of languages. If the same generalisations also hold for this sample, these generalisations cannot be the results of language-internal variation, and hence count as results from cross-linguistic variation.

The questions, which will be addressed, are similar to those that have been put forward in chapter 3 and 4. For each language the following questions will be asked.

(1)   In which phase of the Jespersen Cycle can the language be classified?

(2)   What is the syntactic status (preverbal/adverbial) of the negative marker that expresses sentential negation in the language?

(3)   a.   Does the language exhibit Negative Concord (NC)?
        b.   If so, is it Strict or Non-Strict Negative Concord?
        c.   Does the language exhibit Paratactic Negation (PN)?

(4)   Does the language exhibit Double Negation (DN)?

(5)   Does the language allow negative imperatives?

(6)   What is the interpretation of constructions in which a universal quantifier subject precedes the negative marker?

This chapter is constructed as follows: since I followed the diachronic development of Dutch negation, I will also classify the languages by the phase of the Jespersen Cycle they are in. Hence I will start by discussing the languages that are in Jespersen Phase I in section 5.1, languages that are in Jespersen Phase II in section 5.2, etc. At the end of this chapter, in section 5.7, all the results of this typological study will be presented in one table and all generalisations, which will form the input for the theoretical analyses in chapters 6-8, will be presented.

5.1   Phase I languages

As has been shown in chapter 3.3, all Phase I languages exhibit sentential negation by means of a single preverbal negative marker. However, with respect to the other phenomena that have been subject to study, one can distinguish three different subclasses of languages within this class of languages: (i) Strict NC languages that allow true negative imperatives (such as most Slavic languages); (ii) Strict NC languages that do not allow true negative imperatives (such as Greek or Hungarian) and (iii) Non-Strict NC languages, which always block true negative imperatives (Spanish/Italian). Non-Strict NC languages that allow true negative imperatives have not been found. In the rest of this section I discuss these three types of Phase I languages.

5.1.1   Slavic languages

In Slavic languages, negation is expressed by means of a negative that is prefixed to the finite verb. Languages such as Czech, Polish, Russian and Serbo-Croatian do not have any negative adverbial marker and hence they are Phase I languages.

(7)   Milan *ne*volá   Czech
        Milan neg-call
        'Milan doesn't call'

(8)   Jan *nie* pomaga ojcu   Polish
        Jan neg helps father
        'Jan doesn't help his father'

(9)   Petja na koncerte *ne* byl[181]   Russian
        Petja at concert neg was
        'Petja wasn't at the concert'

(10)   *Ne* vidim ih[182]   Serbo-Croatian
        Neg saw.1SG them
        'I didn't see them'

These languages are Strict NC languages. N-words are always required to be accompanied by a negative marker, even if the subject is in preverbal position.

---

[181] Example taken from Partee & Borschev (2002).
[182] Example taken from Schütze (1994).

(11) a. Milan *nikomu ne*volá   Czech
          Milan n-body neg-call
          'Milan doesn't call anybody'
      b. Dnes *ne*volá *nikdo*.
          Today neg-calls n-body
          'Today nobody is calling'
      c. Dnes *nikdo ne*volá.
          Today n-body neg-calls
          'Today nobody is calling'

(12) a. Janek *nie* pomaga *nikomu*   Polish
          Janek neg helps n-body
          'Janek doesn't help anybody'
      b. *Nie* przyszedł *nikt*
          Neg came nobody
          'Nobody came'
      c. *Nikt nie* przyszedł
          N-body came
          'Nobody came'

(13) a. Natasa *nichego ne* znaet   Russian
          Natasa n-thing neg knows
          'Natasa doesn't know anything'
      b. *Ne* rabotaet *nichego*
          Neg works n-thing
          'Nothing works'
      c. *Nichego ne* rabotaet
          N-thing neg works
          'Nothing works'

(14) a. Milan *ne* vidi *nista*   Serbo-Croation
          Milan neg see n-thing
          'Milan doesn't see anything'
      b. *Ne* zove *niko*
          Neg came n-body
          'Nobody came'
      c. *Niko ne* zove
          N-body neg came
          'Nobody came'

Similar to Dutch microvariation, these languages allow Paratactic Negation (PN), if the n-word is licensed by a proper downward entailing operator, such as the preposition *without*. However, speakers vary with respect to the grammaticality of such PN constructions. In Czech, Polish and Romanian the construction *without n-thing* is well-formed and yields a reading 'without anything'. In Russian this is also

accepted, although the expression appears to be more colloquial. Interestingly, the NC reading is unavailable when *nichego* 'n-thing' is replaced by *nikego* 'nobody'. In Serbo-Croatian this construction is only accepted in some varieties and is not accepted in the standard language, which uses NPI's similar to English *any*-terms.

(15)   Bez *nikoho*   Czech
       Without n-body
       'Without anybody'

(16)   Bez *niczego*   Polish
       Without n-thing
       'Without anything'

(17)   a.   %Bez *nichego*   Russian
            Without n-thing
            'Without anything'
       b.   *Bez *nikogo*
            Without n-body
            'Without n-body'

(18)   a.   Bez *iceg*   Serbo-Croatian
            Without anything
            'Without anything'
       b.   %Bez *niceg*
            Without n-thing
            'Without anything'

All these Slavic languages allow true negative imperatives (cf. also Tomic 1999). The examples (19)-(22) show that the imperative verb allows a preverbal negative marker without changing its form.

(19)   a.   Pracuj!   Czech
            Work.IMP
            'Work!'
       b.   *Ne*pracuj!
            Neg.work.IMP
            'Don't work!'

(20)   a.   Pracuj!   Polish
            Work.IMP
            'Work!'
       b.   *Nie* pracuj!
            Neg.work.IMP
            'Don't work!'

(21) a. Rabotaj!   Russian
           Work.IMP
           'Work!'
    b. *Ne* Rabotaj!
           Neg.work.IMP
           'Don't work!'

(22) a. Radi!   Serbo-Croatian
           Work.IMP
           'Work!'
    b. *Ne* badi!
           Neg.work.IMP
           'Don't work!'

The Slavic languages under study yield an inverse reading if a universal quantifier subject (an ∀-subject henceforward) precedes the negative marker: negation scopes over the universal quantifier in these sentences. Note however, that for all speakers these sentences are marginally grammatical.

(23) Každý *ne*má takové štěstí   Czech
      Everybody neg.has such luck
      'Not everybody is so lucky'

(24) Wszyscy *nie* przyszli na imprezę   Polish
      Everybody neg came to party
      'Not everybody came to the party'

(25) Kazdyj rebenok ne govorit po-anglijski   Russian
      Everybody student neg speaks English
      'Not every student speaks English'

(26) Svako *nije* dosao na zurku   Serbo-Croatian
      Everybody neg.AUX come to party
      'Not everybody comes to the party'

5.1.2   Greek, Romanian, Hungarian, Hebrew

Greek, Romanian, Hungarian and Hebrew differ with respect to the previous set of languages as they do not allow true negative imperatives. With respect to the other phenomena they behave similar. In (27)-(30) it is shown that they are Phase I languages that exhibit sentential negation by means of a preverbal negative marker.

(27)   O Stefonos *dhen* pigi   Greek
        The Stefanos neg walked
        'Stefanos didn't walk'

(28)   Ion *nu* munceste   Romanian
        Ion neg works
        'Ion doesn't work'

(29)   *Nem* láttam Jánost   Hungarian
        Neg saw.1SG Janos
        'I didn't see Janos'

(30)   John *lo* oved   Hebrew
        John Neg works
        'John doesn't work'

Greek, Romanian, Hungarian and Hebrew also exhibit Strict NC as both preverbal and postverbal n-words are obligatory accompanied by the negative marker.

(31)   a.   *Dhen* ipe o Pavlos *TIPOTA*   Greek
              Neg said the Paul n-thing
              'Not everybody is so lucky.'
        b.   *Dhen* irthe KANENAS
              Neg came n-body
              'Nobody came'
        c.   *KANENAS dhen* irthe
              Neg came n-body
              'Nobody came'

(32)   a.   Ion *nu* suna pe *nimeni*   Romanian
              Ion neg calls to n-body
              'Ion doesn't call anybody'
        b.   *Nu* suna *nimeni*
              Neg calls n-body
              'Nobody calls'
        c.   *Nimeni nu* suna
              N-body calls
              'Nobody calls'

(33)   a.   Balázs *nem* látott *semmit*[183]   Hungarian
              Balázs neg saw n-thing
              'Balázs didn't see anything'

---

[183] Example taken from Suranyi (t.a.).

    b.   *Nem* jött el *senki*
        Neg came PREF n-body
        'Nobody came along'
    c.   *Senki nem* jött el
        N-body neg came PREF
        'Nobody came along'

(34) a.   John *lo* metzaltzel le-*af* exhad   Hebrew
        John neg calls to-n- body
        'John doesn't call anybody'
    b.   *Lo* tziltzel *af* exhad
        Neg called n- body
        'Nobody called'
    c.   *Af* exhad *lo* tziltzel
        N- body neg called
        'Nobody called'

Greek, Romanian, Hungarian and Hebrew also accept PN constructions, but these languages vary with respect to the extent to which this is possible. Greek is very restrictive, only allowing anti-veridical operators to participate in PN constructions (cf. Giannakidou 1997, 1999, 2000). Romanian and Hungarian are more liberal and Hebrew has obligatorily PN constructions in most downward entailing contexts.

(35) Xoris *KANENAN*[184]   Greek
      Without n-body
      'Without anybody'

(36) Fara *nimic*   Romanian
      Without n-thing
      'Without anything'

(37) *Semmi* ne'lkül   Hungarian
      N- thing without
      'Without anything'

(38) Bli shum davar   Hebrew
      Without n- thing
      'Without anything'

Greek, Romanian, Hungarian and Hebrew are distinct from the Slavic languages, as they do not allow true negative imperatives. In these languages the negative marker cannot precede the imperative verb, and negative imperatives can only be expressed by means of a surrogate imperative. In Greek and Hungarian the imperative verbs are

---

[184] Example taken from Giannakidou (1997).

replaced by subjunctives, in Romanian by an infinitive and in Hebrew the negative imperative requires a future form.[185]

(39) a. Diavase to!   Greek
          Read it
          'Read it'
      b. *Dhen diavase to!
          Neg read.IMP it
          'Don't read it'

(40) a. Lucreaza!   Romanian
          Work.IMP
          'Work!'
      b. *Nu Lucreaza!
          Neg work
          'Don't work!'

(41) a. Olvass!   Hungarian
          Read.IMP. INDEFOBJ
          'Read it'
      b. *Nem olvass!
          Neg read.IMP.INDEFOBJ
          Don't read it'

(42) a. Avod!   Hebrew
          Work.IMP
          'Work!'
      b. *Lo avod!
          Neg work
          'Don't work!'

Finally, Greek, Romanian, Hungarian and Hebrew constructions in which an ∀-subject precedes the negative marker give rise to a reverse reading, where the negation scopes over the quantifier. However, the acceptability of these sentences differs. In Romanian and Hebrew they are well-formed, in Greek and Hungarian they are marked.

---

[185] In Romanian, the surrogate negative imperative is only infinitive in singular forms. The plural negative imperative is a true imperative form, but this form is phonologically identical to the 2nd person plural indicative verb. Hence the (un)grammaticality of true negative imperatives can only be determined with singular verbs. (Oana Ovarescu p.c.).
The case in Hungarian is more complicated. The negative marker *nem* is not allowed in imperatives or pseudo-imperative constructions. Hungarian has a special negative marker for imperatives, *ne*.
However, this negative marker *ne* may not be followed by a verb in the imperative form, but only by a subjunctive verb. (Kriszta Szendröi p.c.).
In Hebrew, there is a special imperative negative marker too, *al*, which cannot be combined with an imperative verb, but only with a verb in future tense. (Eytan Zweig p.c.).

(43) ?Kathe agoru *dhen* efije   Greek
      Every boy neg left
      'Not every boy left'

(44) Toata lumea *n*-a venit la petrecere   Romanian
      Everybody neg-has come to party
      'Not everybody has come to the party'

(45) ?Mindenki *nem* beszél angolul   Hungarian
      Everybody neg speaks English
      'Not everybody speaks English'

(46) Kulam lo bau la-mesiba   Hebrew
      Everybody neg came to-DEF.party
      'Not everybody came to the party'

5.1.3   Italian, Spanish, Portuguese

The third group of Phase I languages exists of most Romance languages. These languages express sentential negation by means of a single preverbal negative marker as is shown for Italian (47), Spanish (48) and Portuguese (49).

(47) Gianni *non* mangia   Italian
      John neg eats
      'John doesn't eat'

(48) Juan *no* vino   Spanish
      Juan neg came
      'John didn't come'

(49) Eles *não* a conhecem[186]   Portuguese
      They neg her know
      'They don't know her'

Italian, Spanish and Portuguese are Non-Strict NC languages, as they do not allow n-words to dominate the negative marker. Hence, if an n-word is in preverbal subject position, the sentence is ungrammatical.[187]

---

[186] Preverbal negative markers in this type of languages generally allow clitics to intervene. In chapter 6, I will elaborate on clitic intervention in negative sentences in more detail.
[187] Unless the subject is emphasized. In that case the sentence receives a DN reading.

(50) a. Gianni *non* ha telefonato a *nessuno*   Italian
           Gianni neg has called to n-body
           'Gianni didn't call anybody'
    b. *Non* ha telefonato *nessuno*
           Neg has called n-body
           'Nobody called'
    c. *Nessuno* (*non) ha telefonato
           N-body neg has called
           'Nobody called'

(51) a. Juan *no* miraba a *nadie*   Spanish
           Juan neg looked at n-body
           'Juan didn't look at anybody'
    b. *No* vino *nadie*
           Neg came n-body
           'Nobody came'
    c. *Nadie* (*no) vino
           N-body neg came
           'Nobody came'

(52) a. O Rui *não* viu *ningém*   Portuguese
           Rui neg looked at n-body
           'Rui didn't look at anybody'
    b. *Não* veio *ningém*
           Neg came n-body
           'Nobody came'
    c. *Ninguém* (*não) veio
           N-body neg came
           'Nobody came'

Similar to other Phase I languages that have been studied, Italian, Spanish and Portuguese exhibit PN, as is shown in the following examples.

(53) Senza *nessuno*   Italian
      Without n-body
      'Without anybody'

(54) Sin *nadie*   Spanish
      Without n-body
      'Without anybody'

(55) Sem *ningém*   Portuguese
      Without n-body
      'Without anybody'

Italian, Spanish and Portuguese also ban true negative imperatives. This is related to the fact that these languages are Non-Strict NC languages. No Non-Strict NC language has been found that allows true negative imperatives

(56) a.   Telefona![188]   Italian
           Call
           'Call!'
      b.   *_Non_ telefona!
           Neg call.IMP
           'Don't call'

(57) a.   ¡lee! [189]   Spanish
           Read.IMP
           'Don't read'
      b.   *¡_No_ lee!
           Neg read.IMP
           'Don't read'

(58) a.   Faz isso!   Portuguese
           Do.IMP it
           'Do it'
      b.   *_Não_ faz isso!
           Neg read.IMP it
           'Don't do it'

Finally, clauses in which a universal quantifier subject (∀-subject henceforward) precedes a negative marker, a reverse interpretation is possible whereby negation scopes over the subject. Note that in Italian these constructions are only marginally acceptable. In Portuguese these constructions are even reported to be unwellformed.

(59) [?]Tutti _non_ parlano Inglese   Italian
      All neg speak English
      'Not everybody speaks English'

(60) Todo el mundo _no_ vino   Spanish
      All the world neg came
      'Not everybody came'

(61) *Todos _não_ vieram   Portuguese
      Everybody neg came

---

[188] Example taken from Zanuttini (1996).
[189] Data are from Tomic (1999).

5.1.4   Concluding remarks

The languages discussed above provide sufficient data to confirm the generalisations that have been drawn on the basis of Dutch diachronic and dialectological variation.

First, all Phase I languages are NC languages. Hence the generalisation that NC seems to occur in every language that has a preverbal negative marker holds for all Phase I languages discussed.

Second, it turns out that Non-Strict NC languages also ban true negative imperatives. However, the ban on negative imperatives is not restricted to Non-Strict NC languages. Some Strict NC languages, such as Greek, also ban negative imperatives. On the other hand, other Strict NC languages, such as the Slavic languages, allow true negative imperatives.

Finally, the generalisation phrased in the previous chapter that all NC varieties of Dutch yield inverse readings in constructions in which the negative marker is preceded by an $\forall$-subject, also holds for the set of Phase I languages.

5.2   Phase II languages

The number of Phase II languages is much smaller than the number of Phase I languages (cf. Haspelmath 1997). In Phase II languages the second negative marker is optional and therefore these languages can be seen as transit languages. These languages are on their way from Phase I to Phase III. Hence these languages are not stable with respect to the expression of sentential negation, which explains their low frequency.

In this section, I discuss two languages that exhibit Phase II behaviour: Tamazight Berber and Catalan. These two languages express negation by means of a single preverbal negative marker, but allow for an optional negative adverb to occur in negative sentences.

(62)   *Ur* ughax (*sha*) lktaab   Tamazight Berber
        Neg 1SG.bought neg book
        'I didn't buy the book'

(63)   *No* serà (*pas*) facil   Catalan
        Neg be.FUT.3SG neg easy
        'It won't be easy'

All Phase II languages exhibit NC. In (64) and (65) it is shown that the preverbal negative marker *ur* is allowed to participate in NC relations. However, the question

whether Tamazight Berber is a Strict NC languages cannot be answered straightforwardly, as languages only exhibit Strict or Non-Strict NC with respect to a particular negative marker. Berber is a Strict NC relation with respect to this marker *ur*, as it co-occurs with negative subjects as well, both in preverbal and postverbal position. The negative adverb *sha* is not allowed to participate in NC relations, unless it heads the NC chain, i.e. it dominates all other n-words. Hence, Berber is a Non-Strict NC language with respect to *sha*, as the subject n-word may not precede this negative marker (65).

(64) a. *Urdgin ur* dix (**sha*) gher frans   Tamazight Berber
          Never neg went.1SG neg to France
          'I never went to France'
      b. *Sha-ur* 3lix *walu*
          Neg-neg see.PERF.1SG n-thing
          'I didn't see anything'

(65) a. *Ur* iddi (**sha*) *agidge* gher-lhefla   Tamazight Berber
          Neg went neg n-one to party
          'Nobody went to the party'
      b. *Agidge ur* iddin (**sha*)
          N-one neg went neg
          'Nobody went'
      c. *Sha-ur* iddi *agidge* gher-lhefla
          Neg-neg went n-body to-party
          'Nobody went to the party'

There are two varieties of Catalan with respect to NC: one variety that is a Strict NC variation (Catalan I), and one variety that exhibits Non-Strict NC behaviour (Catalan II). In both varieties of Catalan the optional negative adverb *pas* is allowed to participate in the NC chain.

(66) a. *No* ha vist (*pas*) *ningú*   Catalan (I)
          Neg has.3sg seen neg n-body
          'He didn't see anybody'
      b. *No* functiona (*pas*) *res*
          Neg works neg n-thing
          'Nothing works'
      c. *Res* *(*no*) functiona (*pas*)
          N-thing neg works neg
          'Nothing works'

(67) a. *No* ha vist (*pas*) *ningú*   Catalan (II)
          Neg has.3sg seen neg n-body
          'He didn't see anybody'

    b.   *No* functiona (*pas*) *res*
        Neg works neg n-thing
        'Nothing works'
    c.   *Res* (*no) functiona (*pas*)
        N-thing neg works neg
        'Nothing works'

Both Berber and Catalan allow PN, as is shown in the following examples:

(68)   Bla *walu*   Tamazight Berber
        Without n-thing
        'Without anything'

(69)   Sense *ningú*   Catalan
        Without n-body
        'Without anybody'

These languages are in line with the generalisation drawn in the previous section: all Non-Strict NC languages disallow negative imperatives and Strict NC languages may vary with respect to the availability of true negative imperatives. Catalan disallows true negative imperatives, whereas they are grammatical in Berber.

(70)   a.   Teddath   Tamazight Berber
           Go.IMP neg
           'Go'
      a.   Ur teddath (sha)
           Neg go.IMP go
           'Don't go'

(71)   a.   ¡Canta esa canción!   Catalan
           Sing.IMP that song
            'Sing that song'
      b.   *¡*No* canta esa canción!
           Neg sing.IMP that song
           'Don't sing that song'

Finally, the two languages all allow inverse readings of sentences in which an ∀-subject precedes the negative marker, although the reading is Berber is marked. So far the generalisation that NC languages render inverse readings in these constructions is confirmed.

(72) Kul-shi *ur* iddi (sha)   Tamazight Berber
      Everybody neg went neg
      ?'Not everybody went'

(73) Tothom *no* va (*pas*) venir a la festa   Catalan
      Everybody neg goes go to the party
      'Not everybody goes to the party'

5.3   Phase III languages

In this section I will discuss the behaviour of Phase III languages. The set of Phase III languages is relatively small. Contemporary examples of Phase III languages are Standard French, some varieties of Italian (cf. Zanuttini 1998) and some versions of Arab, such as Baghdad Arab (cf. Haspelmath 1997). The fact that the set of these languages is (similar to Phase II and Phase IV languages) small, probably comes from the fact that Phase III behaviour is from a economical perspective undesirable: rather than using one marker, one needs two markers to express the same. Hence, it is not surprising that once that the second negative marker becomes obligatorily present, the first negative marker exhibits deletion effects.
Given the small number of Phase III languages and the fact that Middle Dutch, also a Phase III language, has been discussed in detail in the previous chapter, I will restrict myself to Standard French in this section.

Standard French expresses negation by means of two negative markers *ne* and *pas*, which embrace the finite verb.

(74) Jean *ne* mange *pas*   St. French
      Jean neg eats neg
      'Jean doesn't eat'

Standard French is an NC language, since multiple n-words yield only one semantic negation. With respect to *ne*, French is a Strict NC languages, as the preverbal negative marker may follow the subject n-word *personne* ('n-body'). The other negative marker *pas*, contrary to e.g. Middle Dutch, is not allowed to occur in NC constructions

(75) a. Jean *ne* dit (*pas*) *rien* a *personne*   St. French
          Jean neg says neg n-thing to n-body
          'Jean doesn't say anything to anybody'
      b. Il *n'*y a (*pas*) *personne*
          It has PRT neg n-body
          'There isn't anybody'

    c.   *Personne ne* mange (**pas*)
        N-body neg eats neg
        'Nobody doesn't eat'

Standard French also allows PN. The preposition *sans* ('without') is able to select n-words that are not interpreted as semantic negations.

(76)   Sans *rien*   St. French
        Without n-thing
        'Without anything'

The question whether Standard French allows true negative imperatives is harder to address. At first sight Standard French seems to allow negative imperatives, but closer examination turns out that three are subtle differences between positive and negative imperatives. In positive imperatives and pronouns and object clitics occur always to the right of the verb, and pronouns must be heavy. In negative imperatives, pronouns and object clitics have to be in preverbal position and, moreover, pronouns must be weak.

(77)   a.   Regarde moi/*me!   St. French
           Neg me watch
           'Don't watch me'
    b.   Regarde le!
           Watch it
           'Watch it'

(78)   a.   **Ne* regarde moi/le *pas*! [190]
           Neg watch me/it neg
           'Don't watch me'
    b.   *Ne* me/le regarde *pas*!
           Neg it watch neg
           'Don't watch it'

Based on the differences between the examples in (77) and (78) I argue that French does not allow true negative imperatives. The negative imperative forms with weak pronouns are in fact surrogate imperative forms.

As has already been shown in chapter 3.5, Standard French also yields inverse readings in constructions in which an ∀-subject precedes the negative marker *ne*.

(79)   Tous le monde *ne* parle *pas* votre langue   French
        Everybody neg speaks neg your language
        'Not everybody speaks your language'

---

[190] Data are from Rowlett (1998). In chapter 6.1 I will discuss these examples extensively.

To conclude, the generalisations that have been formulated also seem to hold for a prototypical Phase III language such as Standard French. Standard French has a preverbal negative marker and is an NC language. Furthermore, being an NC language, it gives rise to inverse readings in constructions in which the negative marker follows an ∀-subject. Finally, the fact that French is a Strict NC language (with respect to *ne*) and bans true negative imperatives, is in line with the general picture that the set of Strict NC languages can be divided in a set of languages that bans these imperatives, and a set of languages that do not.

5.4   Phase IV languages

As the number of Phase IV languages is relatively small as well (cf. Haspelmath 1997), and since I have already discussed several Phase IV varieties in Dutch (17th Century Holland Dutch, Contemporary West Flemish, East Flemish and French Flemish varieties), I will restrict myself again to one language in this section: Colloquial French.
Many speakers of French show *ne* deletion, and use *ne* only in a formal register. Hence *ne* has become an optional negative marker.

(80)   Jean (*ne*) mange *pas*   Coll. French
        Jean neg eats neg
        'Jean doesn't eat'

Colloquial French is similar to Standard French with respect to NC. *Ne* may participate in all NC constructions and hence Colloquial French should be considered a Strict NC language with respect to *ne* and as a Non-Strict NC language with respect to *pas*.

(81)   a.   Jean (*ne*) dit (*pas*) *rien* a *personne*   Coll. French
              Jean neg says neg n-thing to n-body
              'Jean doesn't say anything to anybody'
        b.   Il (*n*)'y a (*pas*) *personne*
              It neg.PRT has neg n-body
              'There isn't anybody'
        c.   *Personne* (*ne*) mange (*pas*)
              N-body neg eats neg
              'Nobody doesn't eat'

PN constructions such as (82) are also allowed in Colloquial French.

(82)   Sans *rien*   Coll. French
         Without n-thing
        'Without anything'

Finally, the other phenomena, namely the ban on negative imperatives (83) and the interpretation on negative sentences containing ∀-subjects (84), are similar in Standard and Colloquial French, apart from the fact that *ne* may be absent.[191]

(83)   a.   Regarde le!   Coll. French
              Watch it
              'Watch me'
        b.   (*Ne*) le regarde *pas*![192]
              Neg it watch neg
              'Don't watch me'

(84)   Tous le monde (*ne*) parle *pas* votre langue   Coll. French
        Everybody neg speaks neg your language
        'Not everybody speaks your language'

It follows that Colloquial French does not contradict the generalisations that have been drawn on the basis of the Dutch microvariation and the other languages in 5.1-5.3.

5.5   Phase V languages

In chapter 4 I have shown that every Dutch variety that exhibits a preverbal negative maker is an NC language. In this chapter it has been shown that this generalisation also holds for all other languages that have been investigated in this study. In chapter 4 I have also argued that the relation between the availability of a preverbal negative marker and the occurrence of NC is uni-directional, i.e. not every language that lacks a preverbal negative marker is a DN language.

In this section I will show that this generalisation is not restricted to Dutch either: German, Norwegian and Swedish express sentential negation by means of a single negative adverb and these languages are DN languages; Quebecois, Bavarian and Yiddish on the other hand are languages which exhibit NC behaviour.

5.5.1   German, Swedish, Norwegian

Phase V languages such as German, Norwegian and Swedish express sentential negation by means of a negative adverb only, as is shown (85)-(87).

---

[191] The sentence *(*Ne)regarde moi pas* 'Neg watch me neg' is well-formed in colloquial French. However, this does not violate the conclusion, since ne is not optionally absent in this example. This sentence will be discussed in chapter 6.

[192] Data are from Rowlett (1998). In chapter 6.1 I will discuss these examples extensively.

(85) Hans kommt *nicht*   German
       Hans comes neg
       'Hans doesn't come'

(86) Ole går *ikke*   Norwegian
       Ole walks neg
       'Ole doesn't come'

(87) Hon har *inte* skrivit   Swedish
       She has neg written
       'She hasn't written'

These languages are all DN languages, i.e. every two negative elements yield a DN reading. This holds both for cases in which a negative quantifier[193] follows and for cases in which the negative quantifier precedes the negative marker.

(88) a.   Hans sieht *nicht Nichts*   German[194]
            Hans sees neg n-thing
            'Hans doesn't see nothing'
       b.   … dass *Niemand* heute *nicht* kommt
            … that n-body today neg comes
            '… that nobody doesn't come today'

(89) a.   Ole sier *ikke ingenting*   Norwegian
            Ole says neg n-thing
            'Ole doesn't say nothing'
       b.   *Ingen* går *ikke*
            N-body walks neg
            'Nobody walks'

(90) a.   Sven har *inte* skrivit *ingenting*   Swedish
            Sven has neg written n-thing
            'Sven didn't write nothing'
       b.   *Ingen* har *inte* skrivit
            N-body has neg written
            'Nobody hasn't written'

PN is also forbidden in these languages. If a negative element occurs in a position in which it is the complement of a negatively connotated element, it remains semantically negative.

---

[193] Since every negative element introduces a semantic negation in these languages, the term *n-word* does not apply anymore.
[194] Some varieties of German allow for EN constructions (see chapter 3.3.4).

(91)   Ohne *Nichts*   German
        Without n-thing
        'Without nothing'

(92)   Uten *ingenting*   Norwegian
        Without n-thing
        'Without nothing'

(93)   Utan *ingenting*   Swedish
        Without n-thing
        'Without nothing'

All these DN languages allow true negative imperatives. The ban on true negative imperatives appears to be related to the fact that the negative marker is a preverbal negative element.

(94)   a.   Mache es!   German
              Do it
              'Do it'
        b.   Mache es *nicht*!
              Do it neg
              'Don't do it!'

(95)   a.   Kom!   Norwegian
              Come
              'Come'
        b.   Kom *ikke*
              Come neg
              'Don't come!'

(96)   a.   Kom!   Swedish
              Come
              'Come'
        b.   Kom *inte*
              Come neg
              'Don't come!'

Standard German is ambiguous with respect to the interpretation of sentences in which an ∀-subject precedes the negative marker. It allows inverse readings of negative expressions in which an ∀-subject precedes the negative marker and readings in which the subject scopes over negation. The inverse readings are however the preferred ones. Norwegian and Swedish yield only the inverse reading. Standard Dutch, which allows the ∀>¬ reading only, differs with respect to the other DN languages with respect to the interpretation of this construction.

(97)   Jeder kommt *nicht*   German
        Everybody comes neg
        'Not everybody comes'
        [?]'Nobody comes'

(98)   Alle kommer *ikke*   Norwegian
        Everybody comes neg
        'Not everybody comes'

(99)   Alle kommer *inte*   Swedish
        Everybody comes neg
        'Not everybody comes'

To conclude, the facts described in this subsection confirm the (uni-directional) generalisations that have been formulated so far. The absence of the preverbal negative marker allows these languages to be DN languages. Moreover, due to the absence of the negative marker, these languages do not ban true negative imperatives. Finally the generalisation that Phase V languages vary with respect to the interpretation of sentences as in (97) is confirmed: German, Norwegian and Swedish allow inverse readings, whereas Standard Dutch does not.

5.5.2   Quebecois, Bavarian, Yiddish

Similar to what has been found in the Dutch language-internal variation, other Phase V languages exhibit NC rather than DN. Three examples are given in this subsection: Quebecois, Bavarian and Yiddish. These languages express sentential negation by means of a single negative adverbial marker (100)-(102).

(100)   Il parle *pas* de toi   Quebecois
        He speaks neg of you
        'He doesn't speak about you'

(101)   S'Maral woid an Hans *ned* hairadn[195]   Bavarian
        The.Maral wants to Hans neg marry
        'Maral doesn't want to marry Hans'

(102)   Yankl vil *nit* khasene hobn mit a norveger[196]   Yiddish
        Yankl wants neg marry with a Norwegian
        'Yankl doesn't want to marry a Norwegian'

These languages are all Strict NC readings as n-words may occur to both the left and the right of the negative adverb. These languages also exhibit PN.

---

[195] Example taken from Weiss (2002).
[196] Example is from Ellen Prince (p.c.).

(103) a.   Je juge *pas personne*   Quebecois
            I judge neg n-body
            'I don't judge anybody'
       b.   Il y a *pas personne* en ville
            He is there neg n-body in town
            'There is nobody in town'
       c.   *Personne* est *pas* capable de parler français à Montréal?
            N-body is neg capable of speak French in Monréal
            'Is nobody able to speak French in Montréal?'

(104) a.   Gestan han'e *neamd ned* gseng   Bavarian
            Yesterday have.I n-body neg seen
            'Yesterday I didn't see anybody'
       b.   … daβ'ma *koana ned* furtgehd[197]
            … that.me n-body neg leaves
            '… that nobody is leaving'

(105) a.   Ikh hob *nit* gezen *keyn* moyz   Yiddish
            I have beg seen n- mice
            'I haven't seen any mice'
       b.   *Keiner* efnt *nit* mayn tir[198]
            'Nobody opens neg my door'
            'Nobody opens my door'

Similar to all other NC languages discussed in this chapter Quebecois, Bavarian and Yiddish also exhibit PN, as is shown in (106)-(108).

(106) Sans *rien*   Quebecois
       Without n-thing
       'Without anything'

(107) Ohne *nix*   Bavarian
       Without n-thing
       'Without anything'

(108) On *gornit*   Yiddish
       Without n-thing
       'Without anything'

---

[197] For independent reasons, subjects always occur to the left of the canonical position of the negative adverb in Bavarian.
[198] Yiddish does not allow subjects to occur in a position to the right of the canonical position of the negative adverb for independent reasons.

In these languages there is no ban on true negative imperatives either. Quebecois differs from other varieties of French with respect to the position of clitics in imperatives. In Standard French clitics occur to the right of the verb in positive imperatives and to the left of the verb in negative imperatives (109).

(109) a. *Fais* le!   Standard French
           Do it
           'Do it'
       b. *Ne* le fais *pas*!
           Neg it do neg
           'Don't do it'

In Quebecois, clitics occur in postverbal position in both positive and negative imperatives. Consequently I assume that true negative imperatives are allowed in Quebecois (110).

(110) a. Vas-y!   Quebecois
           Go-there
           'Go there'
       b. Vas-y *pas*!
           Go-there neg
           'Don't go there'

The examples in (111)-(112) illustrate that true negative imperatives are also allowed in Bavarian and Yiddish.

(111) a. Geh grad so fort   Bavarian
           Go straight PRT away
           'Leave straight away'
       b. Geh *ned* grad so fort!
           Go neg straight PRT away
           'Don't leave straight away'

(112) a. Kuk!   Yiddish
           Look
           'Look!'
       b. Kuk *nit*
           Look neg
           'Don't look'

Finally, Quebecois and Bavarian allow inverse readings of negative sentences in which the subject is a universal quantifier.[199]

---

[199] The results of the Yiddish investigation to the grammaticality of these sentences were not clear enough to present them in this section.

(113)   Tout le monde est *pas* expert   Quebecois
        Everybody is neg expert
        'Not everybody is an expert'

(114)   Jeder ist *ned* so oft on-line   Bavarian
        Everybody is neg that often on-line
        'Not everybody is on-line that often'

Hence all generalisations hold: Phase V languages can be divided in NC and DN languages. If an ∀-subject precedes the negative marker, an inverse reading is yielded in which negation outscopes the subject. Being Strict NC languages, the fact that Quebecois, Bavarian and Yiddish do not ban true negative imperatives is in line with the generalisations.

5.6   *Phase VI languages*

The final set of languages to be discussed in this chapter is the set of Phase VI languages, i.e. the set of languages that allow either a preverbal negative marker or a negative adverb to express sentential negation. As an example I will use three varieties of English, Standard English and two substandard varieties.

Standard English has two different ways of expressing sentential negation: by means of the negative adverb *not* and by means of the contracted negative marker *n't*. Although *n't* is attached to the right of the auxiliary, I consider it as a negative marker that attaches to V_{fin} just as the preverbal marker in the Slavic languages and therefore it falls under the same category as preverbal negative markers. In the following chapter I demonstrate that all preverbal negative markers and markers such as English *n't* have a similar syntactic status (they are syntactic heads).

(115)   a.   John does*n't* come   Standard English
        b.   John does *not* come

In substandard English the negative adverb *not* is hardly used in colloquial speech. The only cases in which *not* is still uttered is when negation is focussed. In all other cases the negative marker *n't* is used.

(116)   a.   Mary is*n't* ill   Subst. English
        b.   [?]Mary is *not* ill

The distinction between the standard and substandard varieties of English is not only manifested in the expression of sentential negation, but also with respect to the occurrence of NC. Standard English is a DN language as two negative elements cancel each other out.

(117)   a.   John does *not* / does*n't* see *no* one   Standard English
             'It is not the case that John sees no one'
        b.   *Nobody* does*n't* / does *not* come
             'It is not the case that nobody comes'

This seems to run against the observation that all languages with a preverbal negative marker are NC languages. However, in English indefinite expressions are generally replaced by an *any*-term in a negative context. Especially if the expression uses the weaker negative marker, the appearance of an *any*-term is preferred. Whereas in negative expressions with the negative adverb *not* the usage of any-terms emphasises negation, this is not the case with the negative marker *n't*.

(118)   a.   John did*n't* buy anything   Standard English
             'John bought nothing'
        b.   John did *not* buy anything
             'John bought nothing at all'

Hence it seems that the English expressions with *n't* exhibit more NC-like behaviour than expressions with *not* or negative expressions in Phase V languages such as German or Norwegian. This observation is confirmed by taking substandard English into account. Ladusaw (1992) shows that most substandard English varieties exhibit NC behaviour. Ladusaw shows furthermore that these varieties can be divided in Non-Strict and Strict NC varieties, which he refers to as A and B varieties respectively.

(119)   a.   John did*n't* see *nothing*   Sub. English (A)
             'John saw nothing'
        b.   *Nobody* has**(n't)* come
             'Nobody came'

(120)   a.   John did*n't* see *nothing*   Sub. English (B)
             'John saw nothing'
        b.   *Nobody* has*n't* come
             'Nobody came'

PN is also allowed in substandard English, as has already been shown by Labov (1966).

(121)   Hardly *no* money, hardly *no* bread.   Sub. English
        'Hardly any money, hardly any bread.'

Hence, most substandard varieties of English are Strict or Non-Strict NC languages, whereas Standard English is a DN language that shows NC-like behaviour and can be considered as a pseudo-NC language.

English also bans true negative imperatives, as it only expresses negative imperatives by means of *do*-support.

(122) a.   Come!   Standard English
       b.   *Come *not*!

Interestingly, older versions of English (15th century English), in which the negative marker *not* was already present but the negative marker *n't* and *do*-support were lacking, allowed true negative imperatives.

(123) Fear *not*!   15th Cent. English
       'Don't fear!'

Apparently, the ban on true negative imperatives is not related to the occurrence of the negative adverb *not*, but rather to the phenomenon of *do*-support or the availability of the contracted form *n't*.

Finally, expressions in which an $\forall$-subject precedes the negative marker are ambiguous with respect to the interpretation: both the $\forall>\neg$ and the $\neg>\forall$ reading area available.

(124) Everybody doesn't / does not speak French
       $\forall>\neg$: 'Nobody speaks French'
       $\neg>\forall$: 'Not everybody speaks French'

To conclude, English seems to be a transit language between Jespersen Phase V, exhibiting DN, and Jespersen Phase I, exhibiting NC. Although English behaves in some respects as a Phase V language, in many other respects and in its substandard varieties it is on its way of becoming a Phase I language and can be considered as an NC language: in that respect the English data support the generalisations that have been drawn thus far: languages with a preverbal negative marker (or in this case a negative marker such as *n't*) are NC languages, the ban on true negative imperatives occurs only in a subset of NC languages and NC languages are able to assign inverse interpretations to sentences in which an $\forall$ subject precedes a negative marker.

5.7   Conclusion

The results of this chapter can be summarised as follows as in (125).

(125)   Overview of the results of the typological study

Language	Phase	PNM[200]	NAM[201]	NC	PN	Strict NC[202,203]	Neg Imp	$\neg > \forall$
Czech	I	+	-	+	+	+	+	+
Polish	I	+	-	+	+	+	+	+
Russian	I	+	-	+	+	+	+	+
Serbo-Croatian	I	+	-	+	+	+	+	+
Greek	I	+	-	+	+	+	-	+
Romanian	I	+	-	+	+	+	-	+
Hungarian	I	+	-	+	+	+	-	+
Hebrew	I	+	-	+	+	+	-	+
Italian	I	+	-	+	+	-	-	+
Spanish	I	+	-	+	+	-	-	+
Portuguese	I	+	-	+	+	-	-	+
Berber	II	+	+	+	+	+	+	+
Catalan (I)	II	+	+	+	+	+	-	+
Catalan (II)	II	+	+	+	+	-	-	+
St. French	III	+	+	+	+	+	-	+
Coll. French	IV	+	+	+	+	+	-	+
Quebecois	V	-	+	+	+	+	+	+
Bavarian	V	-	+	+	+	+	+	+
Yiddish	V	-	+	+	+	+	+	?
German	V	-	+	-	-		+	+
Swedish	V	-	+	-	-		+	+
Norwegian	V	-	+	-	-		+	-
Standard English[204]	VI	+	+	-	-		-	+
English (A)	VI	+	+	+	+	+	-	+
English (B)	VI	+	+	+	+	-	-	+

In order to draw the correct generalisations I will not take into account the results for Standard English as it behaves more like a pseudo NC language than a DN language. This has been illustrated by the results of the different substandard varieties that are typical NC varieties. On the basis of (125) and the results presented in chapter 4 the following generalisations can be drawn:

---

[200] PNM: Preverbal Negative Marker.
[201] NAM: Negative Adverbial Marker.
[202] The distinction between Strict and Non-Strict NC does only apply to NC languages.
[203] In languages with two negative marker, only Strict NC with respect to the preverbal negative marker is taken into account.
[204] I take English n't to be a preverbal negative marker. As I have argued in this chapter, n't behaves as a preverbal negative marker despite its occurrence at the right of the auxiliary.

- The set of Non-Strict NC languages is a strict subset of the set of languages that bans true negative imperatives;
- The set of languages that ban true negative imperatives is a strict subset of the set of languages that express sentential negation by means of a negative marker that is a syntactic head (i.e. Jespersen Phase I-IV and Phase V languages);
- The set of languages that express sentential negation by means of a negative marker that is a syntactic head is a strict subset of the set of NC languages;
- The set of NC languages is a strict subset of the set of languages in which constructions in which an $\forall$-subject precedes the negative marker can be assigned a reverse interpretation (with respect to the subject and the negation).

These generalisations constitute the Venn-diagram in (126).

The typological checking procedure confirms the generalisations that have been drawn on the basis of the Dutch microvariation. Moreover, this chapter provides a more complete overview, as the set of studied languages contains more Phase I and II languages than the Dutch data set does.
I take the generalisations that have been formulated above to be valid and these generalisations will form the input in the following theoretical chapters.

(126)   Venn diagram containing all studied languages

Set of studied languages:
Standard Dutch

Set of languages that allow for an inverse reading
when an ∀-subject precedes the negative marker:
German, Swedish, Norwegian

The set of NC languages:
Quebecois, Bavarian, Yiddish

The set of languages that exhibit
sentential negation by means of a preverbal
negative marker (Jespersen Phase I-IV; VI):
*Czech, Russian, Polish, Serbo-Croatian
Berber*

The set of languages that ban
true negative imperatives:
*Greek, Romanian, Hungarian
Hebrew, Catalan (I/II), St. French,
Coll. French, English (A/B)*

The set of
Non-Strict NC languages:
*Italian, Spanish,
Portuguese*

6 The Syntax of Sentential Negation and Negative Markers

In this chapter I discuss the syntactic properties and behaviour of negative markers and I account for them in a (minimalist) syntactic framework. As was shown in chapter 4 and 5 the syntactic status is related to the other three phenomena that are under investigation in this study: (i) the position of the negative marker in the sentence is uni-directionally related to the occurrence of Negative Concord (NC); (ii) the ban on true negative imperatives only holds in a subset of the set languages that exhibit a preverbal negative marker; and (iii) the availability of inverse readings of clauses with an ∀-subject followed by a negative marker is related to the occurrence of NC and therefore also to the status of the negative marker.

In this chapter I will first address three different questions with respect to the syntax of negative markers in this chapter:

- What is the syntactic status of preverbal negative markers?[205]
- What is the syntactic status of postverbal negative markers?
- What is the locus of negation in the syntactic structure of the clause?

After having answered these questions I rephrase the generalisations from chapter 5 in syntactic terms. The relation between the syntactic status of negative marker and the occurrence of NC will be discussed extensively in chapter 8. Other issues such as the ban on true negative imperatives and the availability of inverse readings in ∀-subject – negation clauses, will be discussed in the rest of this chapter.

In section 6.1 I address the first question, and I will argue that preverbal negative particles and negative affixes are both related to a syntactic head position X° and I show that negative adverbs are syntactic phrases (XP).
In section 6.2 I argue that negative head markers project a negative feature yielding a functional projection NegP. Languages may vary with respect to the position where preverbal negative markers are base-generated: either in a position attached to V_{fin}, in a position that is part of the verbal inflectional system or in Neg°. Furthermore I show that negative adverbs are base-generated in an adjunct position of vP, and in some languages move to Spec,NegP. Finally I will show that the functional projection NegP is not available universally, i.e. negation is not a syntactic category in every language.

---

[205] The terminology is confusing, despite its general usage. Postverbal negative markers refer to negative adverbial markers, which may in fact occur both preverbally and postverbally. Dutch *niet* is a postverbal negative marker in main clauses, but a preverbal negative marker in subordinate clauses. Hence the distinction should be read as 'always occurring in preverbal position' vs. 'also possible to occupy a postverbal position.' As the objective of this chapter is to explain this distinction in syntactic terms, the confusing terminology will be replaced by syntactic terms.

In section 6.3 I argue that the locus of negation is subject to cross-linguistic and language-internal variation. I will argue that the position of NegP in the clause is determined by the semantic properties of the negative operator and not fixed by UG. I follow Ramchand (2001) in her assumption that these properties may vary cross-linguistically.

Section 6.4 contains an account for the ban on true negative imperatives, and explains why this ban holds in several languages only.

In section 6.5 I propose an answer to the question why in NC languages clauses with an ∀-subject followed by a negative marker always allow for an inverse reading.

6.1   The syntactic status of negative markers

This section addresses the question regarding the exact syntactic status of negative markers. As we saw in chapter 5 (and in 3.2.2) preverbal negative markers are either particles (which are separate words), negative affixes or clitic-like elements (which are part of the verbal morphology). All three types of preverbal negative markers share several syntactic properties. Not only is it the case that the two types of preverbal negative markers invoke the occurrence of NC, they also pass several tests that indicate that these markers are negative heads. Given that these elements prove to be negative heads, they are associated with a head position in the syntactic clause: either they are base-generated in a head position, where the verb might pick them up in order to become part of its inflectional morphology, or these negative markers are base-generated on the (finite) verb that stands in an Agree (or Chain) relation with such a head, or the finite verb (c)overtly moves to this head position in order to fulfil some of its syntactic requirements.

Negative adverbial markers behave differently from preverbal markers, and I will show that this difference is related to their phrasal status, i.e. negative adverbs, such as Dutch *niet*, should be considered as XP's rather than as X°.

In 6.1.1 I describe the behaviour of preverbal negative particles. In 6.1.2 I discuss the behaviour of negative affixes and clitic-like elements. In section 6.1.3 I discuss the syntactic status of negative adverbial markers.

6.1.1   Preverbal negative particles as syntactic heads

In this paragraph I first discuss a number of tests that have been developed to determine whether a particular element is a syntactic head (X°) or a syntactic phrase (XP). Zanuttini (2001) takes blocking of head movement (a form of Relativised Minimality tracing back to Travis' (1984) Head Movement Constraint) as crucial diagnostics for a head status of a negative marker and discusses a few tests such as blocking of clitic climbing or blocking of V-to-C movement by negative head markers.

In (1)b it can be seen that the presence of a negative marker *ne* blocks movement of the clitic from a position in an infinitival clause to a position adjoining the matrix auxiliary. The example in (1)c makes clear that this blocking effect is due to the intervening preverbal negative marker *ne*, as clitic movement over *pas* is not illicit. Kayne (1989) argues that the intervening head blocks antecedent government of the trace, but in other frameworks intervening heads are argued to interfere with clitic movement as well.

(1)   a.   Jean la$_1$ fait manger t$_1$ à Paul[206]   French
             Jean it makes eat to Paul
             'Jean makes Paul eat it'
       b.   *Jean l$_1$'a fait *ne pas* manger t$_1$ à l'enfant
             Jean it.has made neg neg eat to
             'Jean has made the child not eat it'
       c.   Jean *ne* l$_1$'a *pas* fait manger t$_1$ à Paul
             Jean neg it.has neg made Paul eat it
             'Jean hasn't made Paul eat it'

Another test, introduced by Zanuttini, is provided by the phenomenon of long clitic-climbing. Italian allows long clitic climbing, i.e. an object clitic moving from the complement position of an infinitive to a position in front of the finite verb. It has been shown (Rizzi 1982, Burzio 1986) that long clitic climbing is not allowed when a negative marker intervenes (2).

(2)   a.   Gianni li vuole vedere   Italian
             Gianni them wants see
             'Gianni wants to see them'
       b.   *Gianni li vuole *non* vedere
             Gianni them wants neg see
             'Gianni doesn't want to see them'

The facts in (1) and (2) can be explained by the assumption that Romance preverbal negative markers are heads that block long clitic climbing, and therefore form a firm indication that these preverbal negative markers are syntactic heads.

A third test is the blocking of verb movement. Paduan, an Italian dialect from Veneto,[207] requires the C° head to be overtly filled in yes/no interrogatives. In positive interrogatives, the verb moves from a lower position (V°) to C°. As a result of the Head Movement Constraint, this movement would be illicit if another head intervened. Hence, if the preverbal negative marker is a syntactic head, V-to-C movement is predicted to be excluded in Paduan yes/no interrogatives. This prediction is born out, as shown in (3).

---

[206] Examples (1)a-b are from Kayne 1989, cited in Zanuttini 2001: 524.
[207] Cf. Benincà & Vanelli (1982), Poletto (2000), Poletto & Pollock (2001).

(3)   a.   Vien-lo?   Paduan
           Comes-he?
           'Is he coming'
      b.   *Vien-lo *no*?
           Comes-he neg?
           'Isn't he coming?'

A final test is the *why not* test developed by Merchant (2001). Given that the *why not* construction is analysed as a form of phrasal adjunction, it is predicted that this construction is only allowed in those languages in which the negative marker is not a syntactic head (4).

(4)   [YP [XP why] [YP *not*]]

This prediction is born out for many of the languages with a preverbal negative marker, illustrated by examples from Italian and Greek (5):

(5)   a.   *Perche *non*?   Italian
      b.   *Giati *dhen*?   Greek
           Why neg
           'Why not'

This observation holds for all languages that I have studied in this research, except for languages in which the negative marker is phonologically identical to the word for 'no' (as in yes/no). Those languages, e.g. Spanish and Catalan, allow the *why not* construction.

(6)   a.   ¿Porqué *no*?   Spanish
      b.   Per què *no*?   Catalan
           Why neg/no

Merchant shows that all languages in which the *why not* construction is ruled out, the meaning of this sentence is expressed by the construction *why no*.

(7)   a.   Perche *no*?   Italian
      b.   Giati *oxi*?   Greek
           Why no

Since the only languages with a preverbal negative marker that allow the *why not* construction have a phonological identical word for *no*, and since *why no* is proven to be the alternative way to express *why not* in languages where the latter is forbidden, I assume that in languages like Spanish or Catalan, the expression *why not* is ill-formed

and replaced by the phonological similar form *why no*. Hence I adopt Merchant's conclusion that preverbal negative markers are syntactic heads.[208]

Possible arguments against a treatment of preverbal negative markers as syntactic heads have been discussed in Rowlett (1998). He provides two arguments from French that form a problem for this analysis, but he shows that these problems can be dispensed with: (i) the substandardly accepted *pour ne pas que* construction; and (ii) multiple occurrences of *ne* in a single clause.

The first problem concerns purpose clauses introduced by *pour* 'in order to' like (8), which have been analysed as a P taking a CP as its immediate complement. In those cases there is no head position available to project the preverbal negative marker *ne* in between P and its complement.

(8)   Habillez-vous bien [$_{PP}$ pour (*ne*) *pas*   French
               [$_{CP}$ que vous preniez froid]][209]
        Dress-yourself well for neg neg that you take.SUBJ cold
        'Dress yourself properly so you don't catch cold'

Rowlett proposes a solution for this problem by arguing that the *pour ne pas que* construction is analogous to the more familiar *pour ne pas V$_{inf}$* construction (following Muller 1991) in which the PP projected by *pour* selects an infinitival clause, which can be denied by an intervening projection hosting *ne*.

(9)   Il y a dix raisons [$_{PP}$ pour [$_{IP}$ *ne*$_i$ [$_{XP}$ *pas* t$_i$ [$_{vP}$ légaliser   French
               la prostitution]]]]
        It there has ten reasons for neg neg legalise the prostitution
        'There are ten reasons not to legalise prostitution'

In such an analysis the P in the *pour ne pas que* construction does not select a CP, but it selects an infinitival clause IP consisting of an abstract infinitival light verb v°, which takes CP as its complement (10). The abstract infinitival head then attaches to the negative marker *ne*.

(10)   Habillez-vous bien [$_{PP}$ pour [$_{IP}$ *ne*-∅$_i$ *pas* [$_{v°}$ t$_i$ [$_{CP}$ que vous preniez froid]]]]

---

[208] Note that this observation is not restricted to languages with one negative marker. The preverbal negative marker *ne* in French cannot participate in the *why not* construction, whereas French *pas* can.

        (i) *Pourquoi *ne*?
        (ii) Pourquoi *pas*?
            Why neg

[209] Taken from Rowlett (1998): 21.

Another possible argument against an analysis of the French negative marker *ne* as a syntactic head is the occurrence of multiple *ne* in a single clause, yielding Double Negation readings.

(11)   Je t'ordonne de *ne plus jamais ne rien* faire[210]   French
        I you.advise of neg n-more n-ever neg n-thing do
        'I advise you to never again not do anything'

Rowlett argues that examples such as (11) are problematic since more than one negative phrase has to be projected in the clause if these negative markers were syntactic heads. This would not be in line with a theory that argues that functional projections are subject to hierarchy (Rizzi 1997, Cinque 1999). However, this does not a priori exclude the presence of multiple similar functional projections in a clause. Zanuttini (1998) proposes a series of functional heads hosting a negative head. In my own analysis of negation (presented in section 6.2 and chapter 8) projections of negative heads may contain negative operators and the Double Negation reading as in (11) is the result of two negative operators in different negative projections. But even if one maintains the assumption that functional projections cannot occur twice in a single clause, one may reason along the same lines as in the analysis of the *pour ne pas que* construction and propose an analysis of these sentences as clauses in which a light verb in the higher clause (which contains the first *ne*) selects an infinitival clause (with lower *ne*). This yields a Double Negation reading as well.

The fact that *ne* heads its own functional projection also proves that this projection of the negative head contains a negative operator, since infinitival clauses consisting of other negative elements are open for NC relations in most languages (including French). This follows from the NC readings of sentences in which the second *ne* is left out (12).

(12)   Je t'ordonne de *ne plus jamais rien* faire[211]   French
        I you.advise of neg n-more n-ever n-thing do
        'I advise you never do anything again'

Only the fact that *ne* is the head of a separate functional projection prevents the lower negative elements from taking part in an NC relation with higher negative elements. However, *ne* cannot be taken to be the realisation of the negative operator itself, since it is allowed to occur in non-negative sentences as well (cf. Rowlett 1998: chapter 1).

On the basis of the examples above that show that preverbal negative particles are syntactic heads, and on the basis of the fact that the presented counterarguments do not raise problems for such an analysis, I conclude that preverbal negative particles are syntactic heads.

---

[210] Taken from Rowlett (1998): 23.
[211] Rowlett (1998): p. 24.

6.1.2   Other preverbal negative markers as syntactic heads

In the previous subsection, I concluded that preverbal negative markers that are syntactic words are syntactic heads. The question now rises, whether this analysis can be extended to other types of preverbal negative markers, i.e. should negative affixes or negative clitics also be considered as negative heads?
Zanuttini (1998, 2001) distinguishes between four different kinds of negative markers: (i) negative adverbs, (ii) strong preverbal negative markers, (iii) weak preverbal negative markers, and (iv) negative markers that are part of the verbal morphology. Negative adverbs will be dealt with in the following subsection and strong preverbal negative markers refer to the kind of negative markers that were proven to be syntactic heads in the previous subsection. The question whether a negative marker belongs to the third or fourth class is much harder to answer. Zanuttini does not analyse the status of inflectional negation in detail and only discusses negative markers that she takes to be weak preverbal negative markers.
Zanuttini defines weak negative markers as those negative markers that cannot express negation by themselves and need to be accompanied by another negative marker, as in the Northern Italian variety of Cairese. These elements are considered to be weak since they attach to V_{fin} or to a clitic that on its turn is attached to the verb.

(13)   U *n*i va *(*nent*)   Cairese
          SU-CL neg.LOC-CL goes neg
          'He doesn't go there'

However, this definition faces empirical and theoretical problems. Slavic languages are known to express negation by means of a negative marker that is attached to V_{fin} in a similar fashion to weak preverbal negative markers. Moreover, from a theoretical point of view there is no reason to ban covert realisations of the higher negative marker. In 7.2 and in chapter 8, I show that most Slavic languages express sentential negation by means of a weak preverbal negative marker that is dominated by an abstract negative operator higher in the clause.
The main difference between weak and strong negative markers seems that with respect to the occurrence of clitics and other functional markers that are attached to the verb, so-called weak markers occupy a lower position in the clause than strong negative markers.

Zanuttini takes weak preverbal negative markers to be syntactic heads adjoined to V°. This analysis is supported by the fact that clitics may occur both to the left and to the right of a weak preverbal negative marker. In many Romance varieties, weak preverbal negative markers occur to the right of first and second person clitics and reflexive clitics, and occur to the left of third person, locative and partitive clitics. Assuming that multiple head adjunction is allowed, this leads to the following syntactic structure for the verbal cluster.

(14)   [$_V$ [$_{CL-2}$ [$_{Neg}$ CL-1 *neg*] CL-2] V][212]
        whereby CL-1: 1st person, 2nd person and reflexive clitics
                 CL-2: 3rd person, locative and partitive clitics

Under Zanuttini's analysis, which takes both clitics and weak preverbal negative markers to be base-generated in head-adjoined position, it follows immediately that these preverbal negative markers are syntactic heads, as phrase-adjunction to heads is ruled out.

Zanuttini distinguishes between weak preverbal negative markers and (inflectional) morphemes. However, weak negative markers only differ from negative affixes with respect to the position they occupy with respect to the verb. The question is legitimate whether negative markers that are instances of the verbal morphology, such as the Turkish negative marker *me*, which precedes tense, mood and person affixes and follows reflexive, causative or passive affixes, are fundamentally different from heads that attach to V_{fin}. Only if it is assumed that Lexical Items (LI's) enter the derivation fully inflected and that the formal features that the LI consists of are spelled out as inflectional morphemes (cf. Chomsky 1995) these negative affixes differ from weak negative markers. If inflected verbs are considered to be the result of a process in which the verb 'picks up' its affixes, the underlying structure for both types of negative markers is identical: they are both syntactic heads that attach to the verb.

The question rises how to interpret the syntactic status of inflectional material. Formal features, i.e. those features that trigger syntactic operations (see section 2.1), are taken to be either interpretable or uninterpretable. During the derivation, every uninterpretable feature has to be eliminated. Feature deletion is the result of feature checking of an uninterpretable feature against an interpretable feature. (Note that uninterpretability is a property of features that only applies at LF.) For example, tense is said to be interpretable on (finite) verbs at LF, but not on nouns. Hence the subject checks its uninterpretable tense feature ([uT]) (according to Pesetzky & Torrego (2001) realised as nominative case) against the interpretable tense feature of the verb. Sentential negation is a property of the entire predicate or proposition as has been shown in 3.2.1. This means that negation is not interpretable on the verb itself, but is interpretable as a negative operator that scopes over the entire predicate/proposition[213]. The negative feature that is part of the inflection of the verb is uninterpretable at LF and should be deleted through feature checking.

Feature checking can take place through the operation Agree, or through Move, which is a superfunction of Agree. Agree implies that an uninterpretable feature [uF] can be checked against an [iF] feature located in a higher position than VP. In minimalist

---

[212] In a framework that forbids multiple adjunction (like Kayne's (1995) anti-symmetry approach) this structure should be replaced by a more complex structure in which each class of clitics attaches to an empty functional head.

[213] The conclusion that negation is not interpretable on the verb is supported by a series of empirical arguments presented in section 2 of this chapter and in chapter 8.

terms, it is said that [iF] probes for a goal [uF]. The question is then: what determines the nature of this functional projection which hosts [iF]? The only possible candidate is a functional projection that is projected by the same feature as the feature [uF] on the verb. In the case of the tense feature this is a T(ense)P, and for mood this is a MoodP. Hence the projection that is needed to eliminate the [uNEG] feature on the verb is a category hosted by a negative feature itself.

However, this analysis suffers from the problem of feature redundancy. Suppose that a feature is realised on the verb and it projects a functional projection of its own, it would be realised twice.

(15) $[_{FP} F_{[F]} [_{VP} V_{[F]}]]$

In order to discard the problem of feature redundancy I adopt a proposal by Koeneman (2000), who combines two earlier proposals by Kerstens (1993) and by Ackema, Neeleman & Weerman (1993). Kerstens (1993) argues that functional structure is projected from the functional features of a lexical item (LI). A problem with Kerstens' proposal is that there are still two identifiable elements, namely the feature F, and a distinct functional head F°. Ackema, et. al. argue that functional projections are reprojections of the verb, i.e. a verb is allowed to project more than once, yielding a new functional projection VP. This position has been argued against by Chomsky (1995), who argues that this would lead to ambiguous phrase markers: it would be unclear for the computational system to decide whether the top VP node is a projection of the original verb, or of the reprojected verb. In order to solve this problem, Koeneman (2001) adopts Giorgi & Pianesi's Feature Scattering Principle (16):

(16)   *Feature Scattering Principle*
         Every feature can head a projection

This principle allows a feature, which is part of an LI that has been inserted in the derivation, to project itself if that is needed to satisfy output requirements. This means that if there is no position available to host an element carrying [iF] and an LI consists of a feature [uF] itself, this feature may project itself in order to create new structure to host the element carrying [iF] to have its [uF] feature checked. Thus, if a verb consists of an uninterpretable feature [uF] this feature may merge with VP to project itself and create a functional projection FP that forms the domain in which feature checking can take place, as in (17).

(17) $[_{FP} [F] [_{VP} V_{<[F]>}]]$

For the case of negation this simply means that every uninterpretable [uNEG] feature present on V_{fin} may project itself creating a functional projection NegP. This assumption immediately answers the question that has been raised in this subsection: what is the syntactic status of weak preverbal negative markers or negative affixes?

The answer is straightforward: both are syntactic heads. Either a negative marker is head-adjoined to V and its syntactic status is X° or it is the realisation of a negative feature on the verb and is allowed to head its own functional projection. Hence in both situations the negative marker is a syntactic head.

From a theoretical point of view it is shown that both kinds of negative markers under discussion are syntactic heads. Despite the fact that there are only few diagnostics to test this conclusion empirically (weak negative markers and negative affixes are attached to the finite verb, and therefore they cannot block any head movement themselves), the *why not* test should still be applicable for languages with a weak negative marker, or a negative affix, since adjunction of a negative head to the XP *why* remains forbidden. This prediction is born out (18).

(18)   a.   *Pochemu*ne*   Russian
        b.   *Waarom *en*   West Flemish
              Why neg
              'Why not'

The question whether negative markers are affixes or weak preverbal markers, can be dispensed with, as it is no longer necessary to answer this question in order to determine the status of the negative marker. I conclude that all non-adverbial negative markers are negative heads.

6.1.3   Negative adverbs as maximal projections

The conclusion so far is that all preverbal negative markers, being strong, weak or affixal, are syntactic heads X° that are either base-generated or moved to a projection that is headed by a negative feature. In this subsection I show that the final class of negative markers, negative adverbs, does not consist of syntactic heads, but of maximal projections XP.

The instruments in this subsection are equivalent to the diagnostics that have been used in the previous subsections: blocking of head movement and the *why not* test. If negative adverbs are XP's they should not block head movement and the *why not* construction should be acceptable. I show that both predictions are correct.

V2 languages such as Standard Dutch or Swedish only exhibit V2 in main clauses. This implies that the verb has to move over the negative adverb to C° in a negative sentence. This movement is allowed in both Swedish and Dutch.

(19)   a.   … om Jan *inte* köpte boken   Swedish
              … that Jan neg bought books
              '… that John didn't by books'

    b.   Jan köpte *inte* boken
            Jan bought neg books
            'Jan didn't buy books'

(20)   a.   … dat Jan *niet* liep   Dutch
            … that Jan neg walked
            … 'that Jan didn't walk'
    b.   Jan liep *niet*
            Jan walked neg
            'Jan didn't walk'

From these results it follows that the negative adverbs in (19)-(20) behave as maximal projections. This is also the result of the *why not* test that is acceptable in all languages in which the negative marker is an adverb (given that the negative markers in (21) are phonologically distinct from the words for *no* (as in *yes/no*) in these languages).

(21)   a.   Why *not*?   English
        b.   Warum *nicht*?   German
        c.   Waarom *niet*?   Dutch
        d.   Varför *inte*?   Swedish
            Why neg?
            'Why not?'

A third argument in favour of an analysis of negative adverbs in terms of XP's stems from topicalisation in V2 languages. In these constructions the only available position for a topic position is Spec,CP which can only be the landing site of an XP. In Swedish, topicalisation of negative marker is possible, as is shown in (22).

(22)   *Inte* var det Selma   Swedish
        Neg was it Selma
        'It was NOT Selma'

However, Dutch does not allow topicalisation of the negative adverb.

(23)   *Niet ziet hij het   Dutch
        Neg sees he it
        'He does not see it'

Barbiers (2002) takes this as an argument that Dutch *niet* is not always an XP, following Hoeksema (1997), who uses the same argument to show that Middle Dutch *niet* is not a specifier. Barbiers points out that topicalisation of Dutch *niet* is (marginally) accepted in some cases.

(24)   Ik had wel gezien dat Jan aankwam,   Dutch
                maar *niet* had ik gezien dat Ed vertrok.[214]
         I had PRT seen that Jan arrived, but neg had I seen that Ed left
         'I did see that Jan arrived, but I had not seen that Ed left'

Barbiers argues that verbs can have their objects in two positions: in a DP that is to the left of VP, or in a complement CP.

(25)   Ik heb <dat> gezien <dat hij kwam>   Dutch
         I have that seen that he came
         'I saw that (he came)'

On the basis of these examples Barbiers (2002) proposes that *niet* can be seen as an argument of the verb that is not allowed to receive a θ-role. Hence *niet* is comparable with expletives in the sense that it has a case feature (realised as [uT]) and lacks a θ-role. Therefore it can only occupy the VP-internal object position (to check its case features) in those constructions in which a verb assigns the θ-role to the complement CP. In those cases *niet* behaves like an XP (24) and the negative adverb is allowed to topicalise. In all other cases *niet* is base-generated in a head position.

Barbiers claims that the syntactic status of *niet* is lexically underdetermined and that it may vary between X° and XP, depending on independent conditions. Generally *niet* is inserted in a head position, but only under well-defined conditions the negative marker may appear in the specifier position, thus allowing sentences such as (24). According to Barbiers this approach is in line with Chomsky's (1995) Bare Phrase Structures as a replacement of X-Bar theory.

This analysis faces several problems. First, the acceptance of sentences like (24) is marginal and the question is legitimate whether these examples provide a firm basis to build a new theory on. Moreover, it may be the case that the acceptability of (24) is related to *wel* (the counterpart of *niet*). For some speakers of Dutch the sentence becomes ill-formed if *wel* is left out.

(26)   *Ik had gezien dat Jan aankwam,   Dutch
                maar *niet* had ik gezien dat Ed vertrok.[215]
         I had PRT seen that Jan arrived, but neg had I seen that Ed left
         'I had seen that Jan arrived, but I had not seen that Ed left'

Second, Barbiers' explanation cannot account for the fact that *niet*, being a head, does not block verb movement to C°, but it is conceivable that this is accounted for in terms of remnant movement in which the entire *v*P moves to Spec,CP rather than V° to C° yielding a V2 order at surface structure (cf. Müller 2004). However this mechanism cannot account for the blocking effects in the Romance varieties in which negative elements block verb or clitic movement, without further stipulations.

---

[214] Barbiers (2002): 21.
[215] Barbiers (2002): 21.

A general and more conceptual argument comes from Bare Phrase Structures itself. Barbiers argues that the head status of the Dutch negative adverb accounts for the general ban on topicalisation. If the negative marker is a head, it cannot undergo head-spec movement to Spec,CP. Head to spec movement is ruled out by Chomsky's (1994) Chain Uniformity Condition.

(27)   *Chain Uniformity Condition (CUC)*
       A Chain is uniform with respect to phrase structure status.

However, in Bare Phrase Structure, the distinction between *specifiers* and *heads* is replaced by the distinction between *minimality* and *maximality* of syntactic element. A head (in the traditional sense) is the first instance in the tree and therefore minimal (X^{min}). A maximal projection is the highest instance of such a head and therefore maximal (X^{max}). This means that CUC does not apply anymore to the traditional notions of heads and specifier, but to minimality vs. maximality. As a consequence there is no general ban on head to spec movement, but only on movement of a minimal element to a maximal position or vice versa. However, as a consequence not every instance of head-to-spec movement is ruled out by this system. Suppose for instance that an element H is adjoined to a higher projection of X (XP in the traditional sense) (28)a. In such a case H, is the lowest and the highest instance of H in the structure, and therefore its phrasal status is $X^{min,max}$. As a consequence H, being maximal, may rise to a position in which it can no longer project, e.g. Spec,CP (28)b. This position is a X^{max} position as well and therefore such movement is not ruled by (27).

(28)   a. $[_G$ G $[_X$ H X]]
       b. $[_C$H C$[_G$ G $[_X$ <H> X]]]

As a consequence, head to-spec-movement is not generally ruled out under Bare Phrase Structure. If the phrasal status of a certain element is both minimal and maximal, topicalisation of such an element is allowed. Hence the assumption of an underspecified lexical representation of Dutch *niet* with respect to its phrasal status gives rise to other predictions that turn out to be incorrect.

I conclude on the basis of the results of the head movement blocking test and the *why not* test that the negative adverbs under study are maximal projections. The question why Dutch *niet* is not allowed to topicalise (in most cases) remains open and is subject to further study.

Although the analysis that negative adverbs are maximal projections is uncontroversial for many languages, the XP status of English *not* is not. The syntactic status of the negative marker has been subject to thorough study (Pollock 1989,1993, Laka 1990, Haegeman 1995, Potsdam 1997, Merchant 2001). I adopt Haegeman's (1995) assumption that *not* is a specifier.

An additional argument in favour of this assumption is that the analysis of English DO- support as a result of the head status of English *not* does not capture all data. It has been argued (cf. Laka 1990, Pollock 1993) that the negative marker blocks V-to-C movement in negative clauses, and therefore the negative auxiliary DO is inserted as a last resort option in a higher position (to fill T°).

(29) $[_{TP}$ T *do* $[_{NegP}$ ∅ $[_{Neg}$ *not*] $[_{VP}$ V]]]

However, English shows verbal movement across the negative marker:

(30)   a.   John has *not* been ill
        b.   John is *not* ill

In (30) it is clear that both forms of the verb *to be* are base-generated in a position to the right of *not*, probably in VP. In (30)b however, the verb shows up in a position to the left of *not*, proving that *not* does not block verb movement. Hence DO-support is not an argument in favour of analyses that take *not* to be an X°. Recall furthermore that English *not* also passed the *why not* test.

The adverbial status of *not* does not hold for the weaker form of *not*, *n't*. Haegeman adopts Zanuttini's (1991) and Pollock's (1993) analysis that *n't* is a syntactic head and illustrates this by the fact that *n't* has to move along with an inflected auxiliary (31), whereas its adverbial counterpart *not* cannot be attached on the auxiliary (32).

(31)   a.   Has*n't* John left?
        b.   *Has John *n't* left?

(32)   a.   Has John *not* left?
        b.   *Has *not* John left?[216]

I adopt Haegeman's (1995) conclusion that English *not* is a specifier and English *n't* is a syntactic head. Note that this widens the class of preverbal negative markers, as *n't* is strictly speaking not preverbal, since it attaches to the right of V_{fin}. Nevertheless, this does not raise any terminological problems as the only distinction that is relevant between the different classes of negative markers now is the distinction between X° and XP. Negative adverbs are XP, all other negative markers are X°.

6.1.4   Concluding remarks

In this section the distinction between preverbal negative markers and negative adverbial markers has been replaced by a distinction in terms of negative head

---

[216] Only acceptable as an archaic expression.

markers versus negative specifiers (X° vs. XP). This means that the generalisations that have been formulated at the end of chapter 5 should be replaced as well. In brief, this means that:

- All languages with a negative marker X° are NC languages, whereas only a subset of the set of languages that have a negative marker XP are NC languages.
- Only a subset of the set of languages with a negative marker X° bans true negative imperatives.
- Every language that has a negative marker X° allows for inverse readings for sentences in which ∀-subjects precede a negative marker.

In chapter 8, I explain the first generalisation in detail. In this chapter I will account for the second and the third generalisation (in 6.4 and 6.5 respectively).

6.2   The negative projection

As we saw in the previous section, negative markers are allowed to host a projection of their own or move, along with V_{fin}, to a head position that is projected by the negative feature. This projection has come to be known as NegP. These assumptions give rise to several questions that I will address in this section.

- What is the nature of this functional projection?
- Which negative markers are base-generated in Neg° and which negative markers are not?
- Do all negative markers obtain a position within NegP?
- Is NegP available in every language?

In 6.2.1, I first discuss what the nature is of a negative projection NegP. In 6.2.2, I argue that preverbal negative markers are either base-generated within this functional projection or that they are originated in a lower position attached to V_{fin} and that these markers move to or agree with the negative projection. In 6.2.3, I argue that negative adverbs may be associated with a specifier position in NegP, but that this is not necessarily true for every language exhibiting only a negative adverb. In 6.2.4 finally, I conclude, arguing for a flexible treatment of the ontology of functional categories, that NegP is not available in every language. 6.2.5 contains some concluding remarks.

6.2.1   NegP as a functional category

Ever since Pollock's (1989) seminal work on the structure of the middle field, it has been generally assumed that there is a separate functional category *negation*, which hosts its own projection. Pollock's argument for this is the fact that auxiliaries in

French and English occupy a different position at surface structure than lexical verbs do. In English, only auxiliaries are allowed to move across the negative marker *not*.

(33) a.   Mary does *not* run   English
      b.   Mary is *not* running
      c.   *Mary runs *not*

In (33) it is shown that the negative marker intervenes between the head of IP, presumably the base-position of the auxiliary and the head of the VP, the base-position of the lexical verb.

The fact that the negative marker may intervene between the two positions indicates that there is a different functional projection located between IP and VP. Pollock shows that the same holds for French. Although in French finite clauses both auxiliaries and lexical verbs occur to the left of the negative marker *pas*, auxiliaries and lexical verbs occupy different positions in negative infinitival clauses. Whereas the auxiliary *être* 'to be' is allowed to occur both to the right and to the left of *pas*, lexical verbs, as *sembler* 'seem' can only occupy a position to the right of *pas*.

(34) a.   *Ne pas* être heureux est une condition   French
                pour écrire des romans[217]
           Neg neg be happy is a prerequisite for write of.the novels
      b.   *N'*être *pas* heureux est une condition pour écrire des romans
           Neg.be neg happy is a prerequisite for write of.the novels
           'Not to be happy is a prerequisite for writing novels '

(35) a.   *Ne pas* sembler heureux est une condition   French
                pour écrire des romans[218]
           Neg neg seem happy is a prerequisite for to.write of.the novels
      b.   **Ne* sembler *pas* heureux est une condition pour écrire des romans
           Neg seem neg happy is a prerequisite for to.write of.the novels
           'Not to seem happy is a prerequisite for writing novels'

On the basis of these observations, Pollock introduces the so-called *Split IP hypothesis*, arguing that IP should be split up in a TP, an AgrP and, if required, a NegP. This NegP consists of a negative head Neg°, hosting preverbal negative markers and a specifier (Spec,NegP) that is occupied by the negative adverb.

---

[217] Example taken from Pollock (1989), cited in Zanuttini 2001: 515.
[218] Example taken from Pollock (1989), cited in Zanuttini 2001: 516.

(36)

```
          TP
         /  \
           NegP
          /    \
       pas      Neg'
       not     /    \
             ne      AgrP
            (n't)    /   \
                        VP
```

This line of analysis has been adopted by many scholars (cf. Laka 1990, Zanuttini 1991, Ernst 1992, Chomsky 1995, Lasnik 1995, Haegeman 1995, Potsdam 1997, Rowlett 1998). However, various proposals for changing the original analysis have been brought forward, e.g. with respect to the internal structure of NegP, the origin of negative elements within NegP, the clause-internal position of NegP, or the question whether there is more than one NegP position available in the clause.

A problem with the functional projection NegP is the fact that although Pollock (1989) shows the presence of NegP in English and French, he assumes that languages cross-linguistically have a NegP at their disposal, without further motivation of this assumption. In 6.2.4, I argue that the availability of a negative projection NegP should in fact be subject to cross-linguistic variation.

6.2.2   Negative head markers being associated with Neg°

In this subsection, I elaborate on a question that has also been put forward in 6.1.2: the origin of (preverbal) negative markers. As was shown by Zanuttini (1998, 2001), four different kinds of negative markers can be distinguished: strong negative markers, weak negative markers, negative affixes and negative adverbs. The conclusion from section 6.1 is that the distinction between weak negative markers and negative affixes is not always straightforward, but that the first three kinds of negative markers can be seen as negative heads, whereas the negative adverbial cannot.

According to Haegeman (1995) languages differ with respect to the place of origin of the negative marker in the clause. Negative markers that negate a clause by themselves are base-generated in Neg°, whereas negative markers that require a second negative marker (like the Cairese variety of Northern-Italian, or West Flemish) have their negative marker base-generated in a lower position, as a V-adjoined clitic or as verbal inflection.

I adopt Haegeman's (1995) suggestion that the origin of the negative head marker may vary across languages, but I argue that this cross-linguistic variation is not related to the independent occurrence of the negative marker, but to the question whether the preverbal negative marker occurs to the right of certain clitics or interact with other inflectional material. This leads to a reduction of the number of preverbal negative markers. The crucial distinction is between preverbal negative markers that are base-

generated in Neg° and those that are base-generated on V_{fin}. The question then is what the exact relation is between the lower base-generated negative marker and the higher negative projection.

In the previous section I argued that negative markers that are base-generated on V_{fin} carry an uninterpretable negative feature [uNEG] that needs to be eliminated. This feature has to move out of the verbal domain in order to project a higher functional projection NegP. Then the negative feature [uNEG] becomes located in Neg°, and it may merge with an abstract negative operator $Op_{\neg}$ that carries [iNEG]. Under spec-head agreement [uNEG] gets deleted.

(37) $[_{NegP} Op_{\neg[iNEG]} Neg°_{[uNEG]} [_{vP} v°_{[uNEG]i} [_{VP} V\text{-}_{[uNEG]i}]]]$

            Agree   Move   Move

Languages differ with respect to the verb movement along with [uNEG]. In SOV languages, V_{fin} probably remains in situ, and the abstract feature [uNEG] moves on its own to $v°$ before moving out of the v phase, whereas in SVO languages [uNEG] moves along with V_{fin}.

If the distinction between strong preverbal negative markers and weak preverbal negative markers/negative affixes is the result of the position where these elements are base-generated (Neg° or on V_{fin}), this difference should also have semantic effects. This is indeed the case. First, in languages (like Czech) with the negative marker base-generated on V_{fin}, other quantifiers, such as 'much', are able to precede the negative marker but remain under the scope of the negation. In Italian, which has a strong preverbal negative marker, the negative marker coincides with Neg° and the quantifier that occurs to the left of *non* outscopes negation (38).

Second, in Slavic languages in which the negative marker is attached to V_{fin}, it is also possible to have NPI objects licensed in a position to the left of the negative marker, whereas this is excluded in languages such as Spanish or Italian, in which the negative marker is base-generated in Neg° (39).

(38)   a.   Milan moc *ne*jedl   Czech
              Milan much neg.eat.perf.
              'Milan hasn't eaten much'
              neg > much   *much > neg
        b.   Gianni molto non ha mangiato   Italian
              Gianni much neg has eaten
              'Gianni hasn't eaten much'
              *neg > much   much > neg

(39)   a.   <u>Ani nohu</u> jsem (tam) *ne*videl.   Czech
              Neg-even a-leg-ACC.SG I-am (there) neg-seen
              'I haven't been seeing anyone'

     b.   *<u>Ni una sola alma</u> *no* he visto   Spanish
           Neg-even a single soul not I-have seen
           'I haven't seen anyone'

In the a examples in (38)-(39), the objects (OB) are under the scope of the negative operator $Op\neg$, and in the b examples they are not.

(40)   a.   [$_{NegP}$ $Op\neg$ [$_{vP}$ OB neg-V]]   Czech
       b.   [$_{XP}$ OB [$_{NegP}$ $Op\neg$]]   Spanish/Italian

On the basis of this observation I conclude that strong negative markers are base-generated in Neg°. Weak preverbal negative markers/negative affixes are base-generated on V_{fin}, and the negative feature moves out of the *v* phase, possibly along with V_{fin}, in order to project a position Neg°, where [uNEG] is deleted under spec-head agreement.

6.2.3   Negative adverbs as *v*P adjuncts

It is often assumed that negative heads are associated to Neg° and that negative adverbs originate in Spec,NegP. However, the latter assumption should be subject of reconsideration. Rowlett (1998) argues that the French negative adverb *pas* is base-generated in a *v*P adjunct position and it moves overtly to Spec,NegP. I demonstrate that Rowlett is essentially right in assuming that these negative adverbs are originally base-generated in a *v*P adjunct position, but that the assumption that negative adverbs universally move to a higher Spec,NegP position is false.

I show that such overt movement is restricted to French (and a few other languages), but that this does not hold for languages such as Standard Dutch or German, or the Scandinavian languages. Rather than stipulating that movement is covert in these languages, I demonstrate that there is no movement at all and that negative adverbs takes scope from a *v*P adjunct position, scoping over the entire proposition.

Rowlett supports his claim that *pas* is not base-generated in Spec,NegP contrary to what Pollock (1989) and Zanuttini (1998) suggest. He provides three different kinds of evidence: conceptual arguments, synchronic arguments and diachronic arguments.
Conceptually the idea that *pas* is a *v*P adjunct is attractive, since it is the smallest syntactic domain that includes the entire proposition.[219]
Synchronic evidence comes from the ban on certain types of negative imperatives in French. As in almost every variety of French the preverbal negative marker is allowed

---

[219] Rowlett does not adopt a framework in which the light verb *v* is always present, and he formulates his assumption about *pas* as VP adjunction. The only theoretical argument in favour of an analysis that includes the light verb *v*, is that it fits nicely in phase theory: negation does not only take a proposition as its complement, but it introduces syntactic islands as well, from which extraction is only possible under well-defined conditions.

to occur optionally, one can distinguish between two types of imperatives in French: those with *pas*, and those with *ne ... pas*.

(41)   (Ne) me regarde pas!   French
        (Neg) me watch neg
        'Don't look at me'

In (41) the pronoun *ne* is a clitic that occurs to the left of the V_{fin}. However, if the pronoun is replaced by a heavy pronoun *moi* 'me' in its canonical postverbal position, it becomes impossible to use the negative imperative with *ne*.

(42)   (*Ne) regarde moi pas!   French
        (Neg) watch me neg
        'Don't watch me'

Elaborating on Kayne's (1992) conclusion that true imperatives lack TP and any functional structure that is higher than TP, Zanuttini (1994) argues that in (42) there is no NegP (which she takes to be higher than TP) available. Hence the negative head *ne* cannot be base-generated in Neg°. Rowlett argues that if Neg° is not realised then there is no possibility for *pas* to move out of its *v*P adjunct position. This accounts for the examples in (42).

If Zanuttini's general account for the ban on true negative imperatives in several languages is correct, it is likely that Neg° is absent in (42). The only alternative, namely that Neg° is realised covertly, does not hold. Suppose that Neg° is realised covertly. In that case *pas* would be expected to move obligatorily to Spec,NegP, thus moving across the object pronoun *moi* which is in a position between NegP and *v*P, as in standard indicative constructions. However, this movement is ruled out.

(43)   a.   *Regarde *pas* moi!   French
              Watch neg me
              'Don't look at me'
        b.   Il *ne* regarde *pas* moi
              He neg watches neg me
              'He doesn't watch me'

Another piece of evidence comes from the observation that French underwent a diachronic change with respect to the position of *pas* (cf. Hirschbüller & Labelle (1993, 1994)). Whereas 20th Century French allows *pas* to occur at a position preceding an infinitival clause, in 17th Century French *pas* occurs to the right of V_{inf}.

(44)　a.　… c'est de *ne* sábandonner *pas*　　　　17th Cent. French
　　　　　　au plaisir de les suivre[220]
　　　　　… it.is of neg abandon neg to.the pleasure of them follow
　　　　　'… is not giving in to the pleasure of following them'
　　b.　Nous fûmes bien malheureux de *ne pas* t'emmener　　20th Cent. French
　　　　We are well unhappy of neg neg you.take
　　　　'We are very unhappy not taking you with us'

The fact that *pas* is allowed to occur at a lower position (with respect to V_{inf}) forms another strong indication that *pas* does not originate in Spec,NegP. This leads to the following syntactic representation of *pas* in French.

(45)　[$_{NegP}$ *pas* [$_{Neg°}$ *ne*] [$_{vP}$ <*pas*> [$_{vP}$]]]　　　　French

A question that rises now is why *pas* has to move to Spec,NegP. As movement is the result of feature checking requirements *pas* has to move to have its uninterpretable [uNEG] feature checked against Neg°, or *pas* has to move to Spec,NegP in order to check an [uNEG] uninterpretable feature of *ne*. Hence the question about the trigger of *pas* movement to Spec,NegP is reduced to the question which of the two negative markers is the bearer of the [iNEG] feature, and which marker carries [uNEG].

It is generally assumed that *pas* carries [iNEG] and *ne* [uNEG]. The reasons for this are: (i) *pas*, contrary to *ne*, is able to express not only sentential negation, but can also negate other phrases such as AP's, DP's, PP's, etc. (46); (ii) *ne* may occur by itself in French, but only in non-negative sentences, i.e. sentences without a negative operator carrying [iNEG]. As soon as *pas* is added, a negative operator is included in the semantics (47). Finally, the assumption that *pas* carries [iNEG] is in line with the observation that NegP does not always have to be realised in sentences that contain *pas*, such as in the imperative in (42), as movement of *pas* is only triggered to check [uNEG] features.

(46)　a.　*Pas* mal　　　　　　　　　　French
　　　　Neg bad
　　　　'Not bad'
　　b.　*Pas* moi
　　　　Neg me
　　　　'Not me'
　　c.　*Pas* de Paris
　　　　Neg of Paris
　　　　'Not from Paris'

(47)　a.　Elle a peur que tu *ne* sois là　　　　French
　　　　She has fear that you neg be.SUBJ there
　　　　'She's afraid that you might be there'

---

[220] Data from Hirschbüller & Labelle (1993).

  b. Elle a peur que tu *ne* sois *pas* là
      She has fear that you neg be.SUBJ neg there
      'She's afraid that you might not be there'
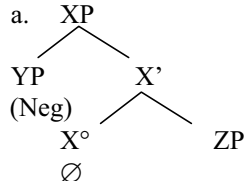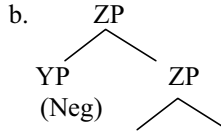
I conclude that movement of *pas* to Spec,NegP is triggered to check *ne*'s [uNEG] feature. In the case of the absence of *ne*, I assume that the Neg° position is phonologically empty, but still contains a [uNEG] feature that heads this projection. In other words, Neg°[uNEG] is optionally spelled-out in French.

(48)   [NegP pas[iNEG] [Neg° (ne)[uNEG]] [vP <pas> [vP]]]   French

The conclusion that French *pas* moves to Spec,NegP in order to check external uninterpretable features, implies that in languages in which there are no [uNEG] features, movement of the negative adverb is not required and therefore excluded. This leads to the following picture for Phase V languages: either there is a phonologically abstract [uNEG] feature present in Neg°, or there is no [uNEG] feature present, and consequently no NegP. For a language like Dutch, this means that there are two possible ways of analysing the structural position of *niet*.

(49)   a.   [NegP niet[iNEG] Neg°[uNEG] [vP t$_i$ [vP]]]
       b.   [vP niet[iNEG] [vP]]

The problem how to determine which representation in (49) is correct for Dutch, is subject of theoretical considerations rather than empirical observations. Since in Phase V languages there is no overt realisation of [uNEG] the head Neg° is always phonologically empty and it does not block verb movement. It follows that there is no empirical way to determine the existence of a head X° if X° is never expressed overtly. Therefore it appears to be impossible to choose between the two structures in (50).

(50)   a.   XP   b.   ZP

       YP   X'   YP   ZP
       (Neg)   X°   ZP   (Neg)
                ∅

The problem is not restricted to negation, but to adverbs in general: are adverbs located in the specifier position of a special functional projection, or are they adjuncts of lexical or functional categories, such as CP, IP, *v*P, etc? In the next subsection, I show that an adjunct approach is to be preferred from a theoretical point of view over the assumption of multiple functional projections. As a consequence, I will argue that Phase V languages only have a functional projection NegP if there is positive

evidence for it: phonological realisations of [uNEG] features or overt movement of the negative adverb to a higher position.

6.2.4   The availability of NegP

Ever since Cinque's (1999) seminal work on adverbial ordering, it is known that adverbs are subject to a functional sequence. Cinque demonstrates that the distributional properties of adverbs, free functional morphemes, verbal affixes and restructuring verbs share important distributional properties, and that for that reason all these phenomena should be given a similar treatment.
Cinque therefore argues that the distribution of adverbs is the result of syntactic selection in which lower adverbial phrases, containing for instance manner adverbs, are selected by higher adverbial phrases like mood or modality phrases. He proposes a fine-grained structure for adverbial phrases as in (51):

(51)   [*frankly* Mood$_{speech\ act}$ [*fortunately* Mood$_{evaluative}$ [*allegedly* Mood$_{evidential}$ [*probably* Mod$_{epistemic}$ [*once* T(Past) [*then* T(Future)   [*perhaps* Mood$_{irrealis}$ [*necessarily* Mod$_{necessity}$ [*Possibly* Mod$_{possibility}$ [*usually* Asp$_{habitual}$ [*again* Asp$_{repetitive(I)}$ [*often* Asp$_{frequentative(I)}$ [*intentionally* Mod$_{volitional}$ [*quickly* Asp$_{celerative(I)}$ [*already* T(Anterior) [*no longer* Asp$_{terminative}$ [*still* Asp$_{continuative}$ [*always* Asp$_{perfect(?)}$ [*just* Asp$_{retrospective}$ [*soon* Asp$_{proximative}$ [*briefly* Asp$_{durative}$ [*Characteristically(?)* Asp$_{generic/progressive}$ [*almost* Asp$_{prospective}$ [*completely* Asp$_{SgCompletive(I)}$ [*tutto* Asp$_{PlCompletive}$ [*well* Voice [*fast/early* Asp$_{celerative(II)}$ [*again* Asp$_{repetative(II)}$ [*often* Asp$_{frequentative(II)}$ [*completely* Asp]]]]]]]]]]]]]]]]]]]]]]]]]]]]][221]

From this ordering, contrasts as in (52)-(53) follow immediately:

(52)   a.   Waarschijnlijk gaat Jan vaak naar huis   Dutch
             Probably goes Jan often to house
             'Probably John often goes home'
       b.   *Vaak gaat Jan waarschijnlijk naar huis
             Often goes Jan probably to house

(53)   a.   Mogelijk heeft hij het werk bijna af   Dutch
             Possibly has he the job almost done
             'Possibly, he has almost done the job'
       b.   *Bijna heeft hij mogelijk het werk af
             Almost has he possibly the work done

However, this ordering is not uncontroversial. First, it has been observed that there are counter-arguments against this ordering as in (54), arguing against a syntactic analysis

---

[221] Cf. Cinque (1999).

of the ordering in terms of selection and feature checking of adverbial heads (Nilsen 2003).

(54)   This is a fun free game where you're *always possibly* a click away from winning $1000![222]

Nilsen (2003) argues that these readings show that the adverbial hierarchy is not the result of syntactic selection, but of semantic scope effects. In (54) *always* scopes over *possibly*, although generally *possibly* dominates *always*. Nilsen assumes that expressions with a scope ordering as in (54) are felicitous only in rare situations. Hence the relative order of adverbials should be accounted for in terms of semantics/pragmatics (cf. also Ernst 2001, Svenonius 2001b).

Nilsen shows that if one has a semantic mechanism that accounts for the standard order of adverbials the selection and checking mechanism Cinque proposes becomes theoretically redundant. The proposal that adverbials move to particular selected positions in order to check the corresponding uninterpretable features of the adverbial heads is no longer needed to account for the relative order of adverbs.[223]

Nilsen's argument is also attractive from a conceptual point of view: it reduces the syntactic ontology. If the adverbial sequence no longer has to be accounted for in syntactic terms, syntax can discard with a series of functional features/projections, a desirable result under minimalist assumptions.

Note that adverbial heads are not ruled out. The distributional properties of adverbial heads and the position of adverbs are determined by pragmatic and semantic considerations. Only if there is positive evidence for uninterpretable adverbial features, such as adverbial morphology on the verb, or free adverbial morphemes that prove to be syntactic heads, the existence of an adverbial head position is required. However, there is no need to assume the presence of adverbial heads if there is no visible marking of the adverbial head at all, and adverbials can be taken to be adjuncts of other projections. As a consequence, not every adverbial corresponds to a distinct syntactic category.

Applying this theory to a theory of negative adverbs, negative adverbs only move to Spec,NegP if there is positive evidence for the existence of a [uNEG] feature. This can either be a negative affix, a preverbal negative marker, overt movement to a higher position than the position that the negative adverb is base-generated in, or overt agreement with an element carrying a phonologically present [uNEG] feature.

The latter possibility connects the syntactic status of the negative marker with the occurrence of Negative Concord (NC). Suppose that n-words (in NC languages) can be considered non-negative elements carrying a [uNEG] feature. Then NC can be seen as syntactic agreement and the negative marker (carrying [iNEG]) eliminates the n-word's [uNEG] feature under Agree. Since in these languages, as in the languages

---

[222] Example taken from Nilsen (2003).

[223] Not every reverse order is ruled out by pragmatic considerations. Nilsen (2003) shows that modal adverbs such as *probably* are positive polarity items and therefore have to precede negation. Likewise, negation always has to scope over universal adverbs such as *always*, as a result of the semantic properties of universal adverbs (which are not allowed to scope over negation).

with a preverbal negative marker, [uNEG] is visibly present, a functional projection NegP is required. In the next chapter, I show that n-words should be treated as non-negative indefinites carrying [uNEG]. That makes NC a trigger for the presence of NegP. Moreover, it is predicted that the relation that all languages with negative head markers are NC languages. NC languages have a NegP at their disposal, whereas non-NC languages do not. Therefore, only in NC languages negative head marker can be spelled out.

To conclude, NegP is only available in languages with a [uNEG] feature, i.e. with a syntactic category *negation*. I showed that NegP is available in all languages with a preverbal negative marker (Jespersen Phase I-IV, VI). In Phase V languages the availability of a NegP depends on the occurrence of [uNEG] features. Hence negation as a syntactic category is subject to cross-linguistic variation.

6.2.5   Concluding remarks

In this section the categorical properties of negation have been introduced and it has been shown that negation may be implemented syntactically by a functional projection NegP. NegP may either host a (strong) preverbal negative marker, or establish an Agree relation with a lower negative marker (clitic-like or affixal). In those cases the negative projection is the result of feature projection of the negative feature of V_{fin}.

Furthermore, following Rowlett (1998) I showed that the negative adverb *pas* in French occupies Spec,NegP at surface structure, but that it originates at a *v*P adjunct position. Elaborating on this observation, and following a line of thinking introduced by Nilsen (2003), I argued that all negative adverbs are base-generated at a *v*P position, and that these elements may move to a derived position Spec,NegP if this projection is triggered. The trigger is the lexical realisation of a [uNEG] feature. This leads to the following typology:

(55)   Phase I languages $[_{NegP} [_{Neg°} \textit{non}] [_{VP} V_{fin}]]$ Italian
                              $[_{NegP} [_{Neg°}] [_{VP} V_{fin}\textit{-me}_{[uNEG]}]]$ Turkish
                              $[_{NegP} [_{Neg°}] [_{VP} \textit{ne-}V_{fin[uNEG]}]]$ Czech
                              $[_{NegP} [_{Neg°} \textit{n}] [_{VP} \textit{u-}V_{fin[uNEG]}]]$ Carcarese
       Phase II languages $[_{NegP} \textit{(pas)} [_{Neg°} \textit{no}]]$ Catalan
       Phase III languages $[_{NegP} \textit{pas} [_{Neg°} \textit{ne}] [_{vP} t_i [_{vP}]]]$ St. French
                              $[_{NegP} \textit{niet} [_{VP} \textit{en/ne-}V_{fin[uNEG]}]]$ Middle Dutch
       Phase IV languages $[_{NegP} \textit{pas} [_{Neg°} \textit{(ne)}]]$ Coll. French
                              $[_{NegP} \textit{niet} [_{VP} \textit{en-}V_{fin([uNEG])}]]$ West Flemish
       Phase V languages $[_{NegP} \textit{net}_i [_{vP} t_i [_{vP}]]$ Bavarian
                              $[_{vP} \textit{niet} [_{vP}]]$ Dutch
       Phase VI languages $[_{NegP} \textit{not} [_{Neg°} \textit{n't}]]$ English

As a syntactic category, negation is subject to cross-linguistic variation. Languages do not require a specific syntactic configuration to express sentential negation. The presence of NegP is only one option. Another option is to use a negative adverb that can be interpreted at LF as the negative operator $Op_\neg$ without further syntactic marking. In that case, the lexical representation of the negative marker is not involved in syntactic operations (except for Merge) and is directly interpreted at LF.

As mentioned briefly in the previous subsection, the distribution of the syntactic category *negation* (or the functional projection NegP) reflects the distributional pattern of NC across languages. All languages that have a syntactic category negation (Neg°, phonologically overt or abstract) also exhibit NC. This means that non-NC languages can only be found amongst Phase V languages. In other words: all languages in which NegP is present are NC languages, and all languages in which NegP is absent (like Dutch) cannot be NC languages. Hence I will hypothesise that NC corresponds one to one to the presence of NegP in negative sentences and that NC is a form of syntactic agreement with respect to negation. This hypothesis will be discussed extensively in chapter 8.

6.3   The locus of NegP

Another question that needs to be addressed with respect to NegP is its position in the clause. First, I will briefly evaluate Ouhalla's (1991) proposal that there is a single position of NegP in the clause, of which the position is parameterised: either it dominates TP or VP. Then I discuss Zanuttini's (1998) analysis that there are multiple NegP's in the clausal domain which potentially could all host a negative marker (6.3.1). In 6.3.2, I show that the position of NegP is semantically derived, where sentential negation is considered to be a form of binding of event variables by a negative quantifier. I follow Ramchand (2001) in assuming that this form of negation is not universal, but that languages may vary with respect to the kind of variables that are bound by a negative quantifier under negation.

6.3.1   Fixed positions of NegP

On the basis of different positions of the negative affix in Turkish and Berber, Ouhalla (1991) argues that NegP can occupy two different positions in the clause. Ouhalla proposes that this variation is the result of a single parameter that either puts NegP on top of TP or on top of VP. He shows that in Turkish, negative affixes are in between the verb and tense affixes, whereas in Berber negation is in the outer layer of verbal morphology. This is shown in (56).

(56)   a.   *Ur*-ad-y-xdel Mohand dudsha[224]   Berber
            Neg.FUT.3MASC.arrive Mohand tomorrow
            'Mohand will not arrive tomorrow'
       b.   John elmalar-i ser-*me*-di   Turkish
            John apples like.neg.PAST.3SG
            'John doesn't like apples'

Ouhalla formulates the NEG parameter as in (57) and he argues that the same parameter holds for languages like Dutch and French as well: in French NegP dominates TP, in Dutch NegP dominates VP.

(57)   NEG Parameter
       a.   NegP selects TP
       b.   NegP selects VP

Although we will see that a fixed parameterised position for NegP leaves open many questions, this proposal provides more space for a flexible analysis of NegP than e.g. Pollock's (1989) proposal, in which the position of NegP is fixed by UG. Ouhalla's analysis that NegP selects VP in languages such as Dutch or German is in line with my analysis that negation in these languages can be expressed by means of an operator in *v*P adjunct position. There are some arguments against a (fixed) position of NegP on top of TP: (i) the argument from the morphological order does not hold: it remains unclear whether the negative markers are affixes or clitic-like elements that are attached to V$_{fin}$; (ii) negation seems to have a distribution that is more free than would be expected from a fixed NegP>TP or TP>NegP order; and (iii) the assumption that NegP dominates TP would incorrectly predict that it is possible to license NPI subjects to the left of the negative marker.

The first argument Ouhalla presents to support his claim that NegP dominates TP or TP dominates NegP comes from the order of tense and negative morphemes in the examples in (56). However, the two examples do not form a strict minimal pair with respect to the order of verbal morphemes, since the Turkish negative affix occurs to the right of the verbal stem, whereas in Berber the inflectional material is located to the left of V$_{fin}$. Consequently, one cannot distinguish between the following two representations for Berber negation:

(58)   a.   [[$_{Neg°}$ *ur*] [$_{V°}$ ad-y-xdel]]
       b.   [[$_{V°}$ *ur*-ad-y-xdel$_{[uNEG]}$]]

In (58)a the negative marker is attached through head adjunction to V$_{fin}$, whereas in (58)b *ur* is part of the verbal inflectional morphology. As the first analysis cannot be excluded for Berber, the argument from morphology does not hold, since *ur* in (58)a is not part of the verbal inflectional system.

---

[224] Example taken from Ouhalla (1991).

A second argument against Ouhalla's parameter comes from Zanuttini (1998, 2001) who argues that postverbal negative markers in Romance varieties are allowed to occupy different positions with respect to adverbials. In a framework as developed in Cinque (1999) this would imply that NegP should be assigned different positions within the adverbial hierarchy. That is exactly why Zanuttini proposes four different NegP position within the hierarchical ordering of functional projections, together with two positions for TP.[225]

(59)   [NegP1 [TP1 [NegP2 [TP2 [NegP3 [AspPperf [Aspgen/prog [NegP4]]]]]]]]]

Zanuttini is essentially right in arguing that more positions should be available for negative markers, but she does not make clear why these positions have to be the result of a syntactic selection mechanism. The fact that the distribution of negative markers seems much more free than a series of fixed NegP position suggests, does not form a strong argument in favour of an even more fine-grained structure, but rather for a free syntactic distribution, which is constrained by some independently motivated syntactic or semantic restrictions. Note that the arguments Nilsen (2003) put forward against a syntactic treatment of adverbial ordering also hold here: if the ordering of negative elements with respect to other elements in the sentences can be explained by a semantic analysis, there is no need to assume a syntactic selection mechanism as well.

The assumption that NegP dominates TP faces another problem: if the negative operator is higher than the canonical subject position, one would expect NPI subjects to be felicitous in a position to the left of the negative marker (since subjects are located in Spec,TP) if the negative marker is attached to V_{fin}. This prediction is not borne out.
The following example from Czech proves that the negative operator is in fact located between the subject and the object position, as the subject NPI cannot be licensed by the lower negative marker, whereas the object NPI can.

(60)   a.   *Petnik by za to *ne*byl dan   Czech
                A.nickel would for it neg.be given
                'A single cent wouldn't be paid for it'
         b.   Petnik by za to *ne*dal
                A.nickel.NPI would for it neg.pay.3SG
                'He wouldn't pay a single cent for it'

---

[225] Another argument Zanuttini provides stems from negative imperatives (see also the discussion earlier in this chapter), where she argues that NegP is parasitic on TP. She claims that if TP is absent any higher functional material should be absent as well. In the following section I show that Zanuttini's analysis for Negative Imperatives cannot explain why NegP should be parasitic. Moreover, even if NegP were parasitic on TP, there is no reason to assume a priori that in such a case NegP should dominate TP.

On the basis of these examples I conclude that in these languages NegP is located below TP as well. Apparently, the position of NegP may vary cross-linguistically, but seems to be dominated in many languages that have been diagnosed as NegP>TP languages. Therefore I argue that in the languages that have been discussed so far, NegP (if present) is below TP.

This claim is not universally applicable. If a given language with a negative marker attached to V_{fin} licenses NPI subjects (with the negative marker occurring to the right of this NPI), one has to assume that in those languages NegP is higher than TP. One such language is Hindi.

(61) Koi-bhii *nahĩĩ* aayaa[226]   Hindi
      Anybody neg came
      'Nobody came'

Hence I take Hindi to be a language in which TP dominates NegP, whereas in most other languages we saw that NegP dominates TP. This may seem as a revival of Ouhalla's NEG parameter (with a different distribution amongst languages), but there is one major difference between Ouhalla's analysis and mine, namely that I do not take the position of NegP in the clause to be a result of some (parameterised) syntactic selection mechanism, but to be driven from its semantic properties.

6.3.2   Sentential Negation as binding free variables

In this subsection I account for the difference between Hindi and the other languages with respect to the position of TP and NegP. In the previous section, I argued, following Nilsen (2003), that an account of the functional sequence should be semantic/pragmatic and such an account replaces a syntactic selection mechanism. This means that the locus of negation in the clause follows from semantic properties of negation. However, the question what the exact semantic properties of negation in natural language are, is subject to a lot of controversy, and a proper discussion of this debate is beyond the scope of this study. I therefore assume, without any further discussion, that standard sentential negation is binding of event variables by existential closure that is introduced by the negative operator (following Acquaviva 1997, Giannakidou 1999). Negation, being the negative operator, introduces an existential quantifier that binds all free variables that have remained unbound during the derivation.

(62) $[Op \neg \exists_{e,x} [\ldots(e)\ldots(x)\ldots]]$

From such an analysis of sentential negation, the locus of negation as dominating vP seems very plausible. In many syntactic analyses $v°$ or a functional projection high in

---

[226] Example taken from Vasishth (1999).

the *v* domain, is said to introduce a free event variable (cf. Chomsky 1995, Ernst 2001). A position above *v*P enables the negative operator to bind the event variable. The assumption that sentential negation is a form of event binding, explains why negation occupies a position in the clause, immediately dominating *v*P.

The question that rises then is how to account for the facts about Hindi, in which negation seems to license NPI's at surface structure. Given that T° introduces a time variable, this implies that in this case negation is not only a form of event negation, but that the existential quantifier that is introduced by the negative operator, binds temporal variables, leading to a different logical form for negative sentences. The idea that languages may vary with respect to the binding strategy for sentential negation has first been proposed by Ramchand (2001). She argues that languages may opt for a strategy in which the negative marker binds an event variable, or a time variable. Consequently, sentential negation can be the result of two different logical forms. However, Ramchand argues that in most cases the two strategies will yield subtle interpretational differences only.

As support for her analysis, Ramchand shows that Bengali has two different negative markers, *ni* and *na*, one for each strategy. *Na* is said to bind event variables, and *ni* binds time variables. Ramchand shows that these negative markers are in most cases in complementary distribution (where *na* is the default negative marker), but that there are sentences that allow for both negative markers. In those sentences the interpretational differences become visible in the interaction with other temporal adverbials. Moreover, the interaction with NPI's follows immediately from this analysis. In Bengali, a temporal NPI adverb *kokhono* 'ever' can only be licensed by *ni* and not by *na*.

(63)   a.   Ami kokhono an khai *ni*   Bengali
              I ever mangoes ate neg
              'I never ate mangoes'
        b.   *Ami kokhono an khai *na*
              I ever mangoes ate neg
              'I never ate mangoes'

6.3.3   Concluding remarks

In this section I argued that there is a series of arguments that languages vary with respect to the position of NegP. In most languages, NegP is located on top of *v*P, in other languages it dominates TP. I showed furthermore that the position of negation is not syntactically predetermined, but that it should be the result of the semantic properties of the negative operator. Following a proposal by Ramchand (2001), I assume that in those languages in which NegP dominates TP, the negative operator binds temporal variables, hence yielding a logical form that is interpreted as sentential negation. In languages in which NegP is below TP the negative operator binds event variables, yielding a logical form, which is also interpreted as sentential negation.

A major advantage of this view on the syntactic distribution of NegP (or the negative operator) is that one does not need to presuppose multiple positions for NegP in order to account for variety of the position of the negative marker, but that every NegP in the syntactic clause introduces exactly one semantic negation.[227]

6.4   Negative Imperatives

As we saw in the conclusion of chapter 5, true negative imperatives are forbidden in all Non-Strict NC languages (64), and in some Strict NC languages (65). In other Strict languages true negative imperatives are allowed (66).

(64)   a.   *¡*No* lee! [228]   Spanish
              Neg read.2SG.IMP
              'Don't read'
        b.   **Non* parla   Italian
              Neg talk.2SG.IMP
              'Don't talk'

(65)   **Dhen* diavase to!   Greek
        Neg read.2SG.IMP it
        'Don't read it'

(66)   a.   *Ne* čitaj ga!   Serbo-Croatian
              Neg read.2SG.IMP it.ACC.CL
        b.   *Ne* go četi!   Bulgarian
              Neg it.ACC.CL read.2SG.IMP
              'Don't read it'

The difference between the negative marker in Greek and the negative marker in the Slavic examples is that the Greek negative marker, similar to the Italian/Spanish marker is a strong negative marker, not attached to V$_{fin}$, whereas the Slavic markers are weak. As I discussed in section 6.2, strong negative markers are base-generated in Neg° and weak negative markers are base-generated in a position attached to V$_{fin}$. The [uNEG] feature is projected in a higher Neg° position, which holds the negative operator [iNEG] in its spec position. Hence the generalisation from chapter 5 with respect to the ban on true negative imperatives can be rephrased as follows:

(67)   Whenever a negative marker is base-generated in Neg°, true negative imperatives are not allowed.

---

[227] This does not exclude the presence of multiple Neg heads in the clause: as these heads will be adjoined to V, these Neg heads do not project.
[228] Examples taken from Tomic (1999).

Several analyses have been proposed to account for the ungrammaticality of (64)-(65). These analyses can be roughly divided into two groups: (i) analyses in terms of the negative marker blocking movement of V_{fin} to a higher position (Rivero 1994, Rivero & Terzi 1995); and (ii) analyses that say that NegP is parasitic on TP, i.e. NegP does not exist without TP being present (and dominating NegP). In the latter analysis true imperatives are said not to trigger any TP, and the absence of TP excludes the presence of a (higher) NegP (Kayne 1992, Zanuttini 1994).

It is standardly assumed that imperatives move to a position in a functional projection that is hosted by a [Mood] feature. Rivero (1994) and Rivero & Terzi (1995) assume that languages vary cross-linguistically with respect to the position where [Mood] can be projected. In languages like Spanish, Italian or Greek, Mood is realised in C°, whereas in the Slavic type of languages Mood is realised in I° (or T°). If Neg° is located between C° and I°, it follows from the Head Movement Constraint that negative heads block movement to C° and hence rule out true negative imperatives. The Slavic languages can express true negative imperatives, since Neg° does not block V-to-I movement.

However, this account faces several problems. Tomic (1999) argues that the assumption that Mood is realised in I° in Slavic languages is not well founded and she provides examples in which she shows that the subject located in Spec,TP can precede and follow the imperative verb. Consequently, imperative verbs can move to a higher position than I°.

A second argument against Rivero's analysis is that several negative markers, such as French *ne*, are able to incorporate into an (empty) head. Hence it remains unclear why French true negative imperatives cannot fuse with *ne* and move to C° together.

(68)   CP   French
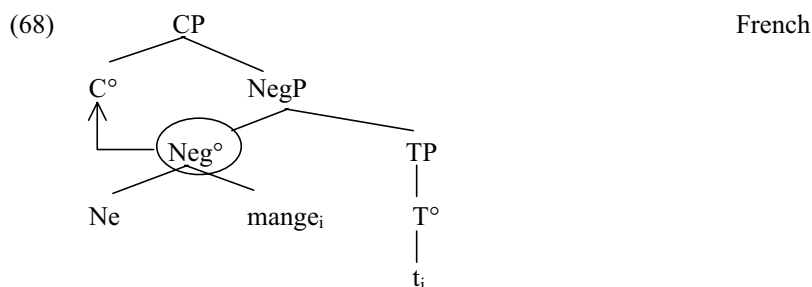
A third argument against Rivero's analysis is that true imperatives are always morphologically poor which argues against an analysis in terms of movement to functional projections, as movement is generally taken to be morphologically driven. The morphological poorness of true negative imperative forms can then be taken as an argument to propose that imperatives clauses are structurally poorer than indicative clauses.[229]

---

[229] This argument is not sufficient by itself, as it depends strongly on the alleged relationship between morphological richness and syntactic operations. However, it is another indication against Rivero's approach.

Zanuttini (1994) suggests, following Kayne (1992), that imperatives only move to a separate Mood° position, which is immediately dominating *v*P and that this MoodP is the highest position in the imperative clause. According to Zanuttini the absence of TP blocks the presence of any functional material higher than TP, including NegP. Since there is no TP, true negative imperatives cannot exist.

Although it seems plausible to assume that TP is lacking in imperatives (since imperatives are considered to be tenseless) and that true imperatives are truncated syntactic structures, there is no reason to assume that NegP is absent as well. Only if the negative marker would carry a [uT] feature that needs to be eliminated against TP, we may explain the absence of negative imperatives as a consequence of the absence of TP. It has been suggested that negative markers require such a feature, since they express sentential negation. This assumption holds in languages in which the negative marker is only allowed to express sentential negation. This is certainly not the case for Italian *non*, since it is also allowed to express constituent negation.

(69)   Gianni ha arrivato *non* oggi   Italian
        Gianni has arrived neg today
        'Not today Gianni arrived'

Moreover, Zanuttini's solution cannot explain why true negative imperatives in languages with a lower negative marker are not forbidden. Since negative markers need to be in a feature checking relation with NegP, true negative imperatives in clauses without a NegP are ruled out.

Both Rivero's and Zanuttini's analyses face serious problems. However these problems can be solved if one adopts the conclusion from the previous section that NegP is below TP and immediately dominates *v*P. In this case MoodP also dominates NegP, and hence an overtly filled Neg° blocks movement from *v*° to Mood° as a result of the HMC.

(70)   [MoodP [NegP [vP]]]

It is explained why in languages in which the negative marker is base-generated in Neg° (Italian, Spanish, Greek, a.o.) true imperatives are not allowed, whereas in languages in which the negative marker is base-generated in a position attached to V_{fin}, Neg° contains a phonologically empty feature [uNEG]. This feature does not block V-to-Mood movement and therefore true negative imperatives are allowed in these languages.

The only problem that remains open is the question why a negative marker that is base-generated in Neg° cannot incorporate into V_{imp} and move to Mood° together with V_{imp}. I take phonologically strong negative markers such as Italian *non* to be (syntactic) words, and the phonologically weak forms, such as French *ne*, not. Furthermore, I adopt the standard hypothesis that syntactic words cannot be subject to

incorporation, but only to compounding. This explains why the negative marker in Italian cannot incorporate in a higher head.

As there is no rule that forbids such incorporation of the French negative marker *ne* the explanation for the absence of true negative imperative forms in French should come from somewhere else. I argue that French *ne*, contrary to the Spanish or Italian negative markers, has a [uT] feature. This explains also why *ne*, contrary to Italian *non*, may not be used as a marker of constituent negation. Adopting Kayne's and Zanuttini's proposal that true imperative forms lack a T° head, the ungrammaticality of true negative imperatives follows immediately: *ne* cannot incorporate into T°, hence its [uT] feature remains unchecked and the derivation crashes.

This analysis is also supported by the facts about French *ne* that have been discussed in 6.1.1. The claim that the French negative marker incorporates into T° also explains the surface order of negative infinitives in French (cf. Rowlett 1998).

(71)   [Il veut [$_{T°}$ *ne*$_i$ [$_{NegP}$ *pas* [$_{Neg°}$ t$_i$ [$_{vP}$ manger]]]]]   French

This analysis about true negative imperatives follows from the generalisation on these imperatives that has been formulated in chapter 5 and accounts for the distribution that has been found. Moreover this analysis can explain the ban on true negative imperatives by adopting (i) that imperatives verbs move obligatory to Mood°; (ii) the Head Movement Constraint; and (iii) the absence of T° in true negative imperatives. Note that these assumptions have been motivated independently.

6.5   *Universal Subjects and Negation*

In this section I, address another generalisation that has been drawn in chapter 5: the relation between Negative Concord and the reading of ∀-subjects that are followed by a negative marker. At the end of section 6.2, I hypothesised that all NC languages express sentential negation by means of a NegP. Hence the generalisation that in all NC languages the reverse ∀-subject - negation reading is available, as well as in a strict subset of the set of Non-NC languages, can be rephrased as in (72).

(72)   Every NC language (i.e. every language that has NegP) has an inverse reading of clauses in which an ∀-subject precedes the negative marker. Only in some non-NC language this reading is also available.

As we saw before, in languages with a NegP present, the negative operator is located in a higher position than in languages without NegP. Recall that one of the arguments to locate NegP immediately above *v*P was that *v*P is the smallest projection that contains the entire proposition (73)a. This assumption is based on the widely accepted proposal that subjects are base-generated in Spec,*v*P and may move to a Spec,TP position later on (Koopman & Sportiche 1991, Chomsky 2001). In languages without

a NegP, subjects and negative operators are both base-generated in a specifier position of *v*P (73)b.

(73)   a.   [$_{NegP}$ $Op_{\neg}$ [$_{Neg°}$ [$_{vP}$ SU [$_{vP}$]]]]
       b.   [$_{vP}$ $Op_{\neg}$ [$_{vP}$ SU [$_{vP}$]]]

In the case of sentential negation in languages that have NegP, the presence of NegP (outside *v*P) is triggered by the presence of a negative head marker that carries [uNEG] or by the fact that the negative head marker is base-generated in Neg°. As a consequence, in all these languages sentential negation always takes scope from a position higher than *v*P outscoping the subject in Spec,*v*P.

In languages without NegP however, this consequence does not follow: as the negative adverb is not required to be hosted in a particular projection, the following structure is also allowed:

(74)   [$_{vP}$ SU [$_{vP}$ $Op_{\neg}$]]

Since in the structure in (74) the subject dominates the negative operator, this is no instance of propositional negation anymore, but an instance of predicate negation, which is strictly speaking (from a syntactic point of view) a form of constituent negation. Thus one difference between NC and non-NC languages is that in NC languages a negative operator cannot take scope from a position below the base-generated position of the subject.[230]

Let us look at the consequences of this fact for universal subjects. It is well known that universal quantifiers are generally not allowed to raise over negation (cf. Beghelli & Stowell 1997, Nilsen 2003) (75).

(75)   John didn't see every book
       $\neg\forall x[\textbf{book'}(x) \rightarrow \textbf{saw'}(\textbf{j}, x)]$
       $*\forall x[\textbf{book'}(x) \rightarrow \neg\textbf{saw'}(\textbf{j}, x)]$

However, in the logical form of (76), the subject scopes over the negative operator. Since universal quantifiers are not allowed to raise over the negative operators, the only way to establish such readings is by the $\forall$-subject already having scope over the negative operator in base-generated position.

(76)   Iedereen loopt *niet*   Dutch
       Everyone walks neg
       'Nobody walks'

(77)   [$_{vP}$ iedereen [$_{vP}$ *niet* [$_{v°}$ loopt]]]

---

[230] This is not entirely true. In chapter 7 and 8, I show instances where this is indeed the case. However, in those examples there is no negative marker present. The presence of NegP in a position above *v*P is merely the result f the presence of the negative marker in NC languages.

(78) $\lambda P.\forall x.[\textbf{Human'}(x) \rightarrow P(x)](\lambda y.\neg \textbf{walk'}(y)) = \forall x.[\textbf{Human'}(x) \rightarrow \neg \textbf{walk'}(x)]$

Only in those languages in which the subject has been base-generated in a higher position than the negative operator this interpretation is available. In all other languages, these sentences receive the reverse interpretation, i.e. the order $\neg > \forall$. Therefore this reading is expected to be available only in those languages that lack NegP, i.e. only in non-NC languages. This explains partly the generalisation in (72), namely why the only available reading in NC languages is reverse ($\neg > \forall$).

Three questions still need to be answered: (i) how can the fact that languages allow surface structure orders in which the $\forall$-subject dominates the negative marker despite the ban on QR of universal quantifiers over the negative operator as in the example (76); (ii) why are these sentences, even in NC languages, only marginally acceptable; (iii) why do not all non-NC varieties have the $\forall > \neg$ readings at their disposal.

The first question to be addressed is why word orders of the form $\forall > \neg$ (with reading $\neg > \forall$) are allowed in many languages. First, in many languages, e.g. the Slavic languages, the negative marker is attached to V_{fin}, and the negative operator is realised abstractly. In these cases, the location of the negative marker does not represent the location of the negative operator. The correct representation of these sentences is: $Op_{\neg} > \forall >$ negative marker.
Second, in other languages the negative marker is the phonological realisation of the negative operator, such as those many varieties of Dutch in which the reverse order is the preferred one (although it is only marginally acceptable).

(79)   Iedereen komt *niet*   Substandard Dutch
         Everybody comes neg
         'Not everybody comes'

The question remains open why in this sentence the $\forall$-subject seems to be allowed to move over *niet*, whereas the reading remains inverse. This phenomenon can be explained in terms of feature movement. Movement of *iedereen* in cases such as (79) is required for grammatical reasons, since subjects obligatory move to Spec,TP in Dutch. However, movement of the universal quantifier is forbidden for semantic reasons. The only way to rescue this conflict between semantic and formal requirements is to assume feature movement of the relevant (formal and phonological) features to Spec,TP, whereas the relevant semantic features remain in situ. Hence all formal and semantic requirements are fulfilled and the semantic features remain in Spec,*v*P.

(80) $[_{TP} SU_{i[\text{Formal and Phonological Features}]} [_{vP} Op_{\neg} [_{vP} SU_{i[\text{Semantic Features}]}]]]$

The second question, why are these sentences only marginally acceptable to speakers, can be answered in terms of blocking effects. Given that in NC languages the only

possible reading is the inverse reading ($\neg>\forall$), these sentences are hard to parse as surface structure suggests an interpretation in which the universal quantifier scopes over negation. Moreover, there is a much easier way to produce a clause with the same reading ($\neg>\forall$), namely by putting the negation in front of the universal quantifier at surface structure.

(81) *Pas* tous le monde mange   French
      Not everybody eats
      'Not everybody eats'

In sum, I assume that clauses with an $\forall$-subject are generally blocked by the existences of sentences like (81), where the interpretation is identical, but which are more ease to parse.

Finally, the third question concerns the range of interpretations of these clauses in non-NC languages. Contrary to NC languages, clauses with an $\forall$-subject preceding negation in non-NC languages are in principle ambiguous, depending on the original position in the derivation. However, the set of non-NC languages exhibits variation with respect to the availability of the interpretation of these clauses. In some varieties these clauses are ambiguous, in some clauses only the $\forall>\neg$ reading is available, in other varieties only the reverse reading $\neg>\forall$ is available.

I account for the varieties that lack ambiguity in terms of pragmatic blocking of one of these readings. Since both interpretations of (76) can be paraphrased by one the sentences in (82), which are also easier to parse, it is conceivable that languages rule out at least one of these interpretations for pragmatic reasons. In conversation, language users try to reduce ambiguity, and by disallowing one of the possible interpretations, these sentences become unambiguous.

(82) a. *Niemand* komt   Dutch
          N-body comes
          'Nobody comes'
      b. *Niet* iedereen comes
          Not everybody comes
          'Not everybody comes'

The underlying ambiguity of these clauses also explains why these sentences are almost ungrammatical in most languages. As these sentences can easily be paraphrased by unambiguous examples or examples that form less problems for parsing, clauses with an $\forall$-subject preceding negation are generally blocked (cf. Giannakidou (2001) for an analysis for Greek).[231]

---

[231] Giannakidou's (2001) analysis uses pragmatic blocking to account for the ban on universal quantifiers scoping over negation, as QR does not render constructions that cannot be expressed otherwise. This is opposed to universal quantifier NPI's which are required to cross negation for their semantic requirements.

6.6   Conclusions

In this chapter I implemented most generalisations that have been drawn in chapter 4
and 5 in a syntactic (minimalist) framework.

The first question was how to analyse the difference status of preverbal and postverbal
negative markers. I argued, using different diagnostics, that preverbal negative
markers (particles, clitic-like elements attached to V_{fin}, or negative affixes) should be
considered as syntactic heads (Xº). Negative adverbs are considered to be specifiers or
adjuncts of some projection XP.
As preverbal negative markers are syntactic heads, they project their own feature and
this gives rise to a functional projection NegP. The preverbal negative marker is
associated with the head of this projection, Neg°. The negative adverb may be
associated with the specifier position of the functional category NegP, but this is not
necessary. It could also be that the negative adverb remains in a *v*P adjunct position.
Therefore, I argue that languages that only exhibit a negative adverb (Phase V
languages) exhibit variation with respect to the presence of a functional projection
NegP in negative clauses. Recall that this pattern reflects the correspondence between
NC and the syntactic status of negative markers. Since all languages that have a
visible negative head Neg° are NC languages, and only some languages without an
overt negative head are NC language, I proposed the following hypothesis:

(83)   Every language that exhibits a functional projection NegP is a NC language.

In the rest of this chapter I argued that the position of NegP is in between TP and *v*P
in most languages (on the basis of both syntactic and semantic reasons), but that some
languages such as Hindi or Bengali also express sentential negation by means of a
NegP dominating TP. I adopted Ramchand's (2001) claim that sentential negation is a
form of binding of time variables or event variables by means of negative existential
closure.

The conclusions so far lead to an explanation of two other generalisations in chapter
5: first, the generalisation that a subset of the set NC languages forbids true negative
imperatives. I argue that this observation follows from the question whether the
negative head marker is base-generated in Neg° or not. I have shown in section 6.4
that a negative marker blocks movement of V_{fin} from *v*° to Mood° if it is base-
generated in Neg°, which is obligatory for true imperatives.

Furthermore, I explained a second generalisation from chapter 5, namely the fact that
NC languages allow for inverse readings only in clauses in which an ∀-subject
precedes negation. I argued that this follows from the ban on QR of universal
quantifiers over negation, and that in NC languages, given the presence of a functional
category NegP, which hosts the negative operator $Op_\neg$ in its spec position, the ∀-
subject can never scope over negation. In non-NC languages, a derivation where a

universal subject quantifier is base-generated in a higher position than $Op_\neg$ is allowed, and hence the availability of the reading $\forall > \neg$ is accounted for.

The main conclusion from this chapter is that many generalisations follow from the observation that negation is flexible cross-linguistically (or language-internally) with respect to its syntactic categorical status. I have argued that only in a subset of the set of languages negation is realised as a syntactic category, i.e. it triggers syntactic operations. In other languages, like Dutch and German, syntax is blind for negation, i.e. negation does not trigger syntactic operations. Negative lexical items do not contain formal information for the syntactic procedure, but consist of material that can be interpreted directly at the interface with the Conceptual-Intentional component of the language faculty.

7   The meaning of n-words

In this chapter I will address a question that has occupied a central position in the study of Negative Concord: the semantic status of n-words. In the following three sections I will discuss the question whether n-words are inherently negative or not. The central problem becomes clear in the following sentences (taken from Herburger 2001):

(1)   *No* vino   Spanish
       Neg came.3sg
       'He didn't come'

(2)   *Nadie* vino   Spanish
       N-body came
       'Nobody came'

(3)   *No* vino *nadie*   Spanish
       Neg came n-body
       'Nobody came'

In (1) the negation is introduced by the negative marker *no*. Given that the negative marker *no* is the actual negative operator[232], the minimal pair in (2)-(3) raises a problem for the semantic representation of n-words. From (2) it would follow that the n-word *nadie* 'n-body' is semantically negative, as it is the only element in the sentence that is responsible for the semantic negation. However, from (3) it would follow that *nadie* is semantically non-negative, since the meaning of the sentence contains only one negation, that is introduced by *no* 'neg'.

In the literature three different approaches have been formulated to solve this problem. The first approach, *Factorisation and Absorption* (Zanuttini 1991, Haegeman 1995, Haegeman & Zanuttini 1996, De Swart & Sag 2002), says that all n-words are semantically negative and through some semantic process, all the negations melt together into one negative quantifier. The second approach takes the opposite perspective and says that all n-words are non-negative NPI's (Laka 1990, Ladusaw 1992, Giannakidou 1997, 2000) that are licensed by either an overt or a covert negation. Finally, it has been suggested that n-words are ambiguous between a negative and a nonnegative interpretation. Zwarts & Van der Wouden (1993) and Van der Wouden (1994a, 1997) argue that n-words are configurationally ambiguous between semantically negative and non-negative terms. Herburger (2001) argues that n-words are even lexically ambiguous between the two readings.

---

[232] In chapter 8 I will thoroughly analyse the interpretability of negative markers and conclude that this assumption is correct.

In this chapter I will evaluate all three approaches and describe the problems each approach faces. I will argue that the approach that says that n-words are semantically non-negative accounts most adequately for the empirical facts, but that, contrary to what has dominantly been suggested in the literature within this perspective, this approach needs to be implemented in a syntactic framework that takes NC to be the result of syntactic agreement with respect to sentential negation. I will argue that n-words should not be treated as NPI's.

In this chapter I will discuss and evaluate the current literature on the issue and I will conclude that n-words are neither negative quantifiers, nor non-negative NPI's. As an alternative I will propose that n-words are non-negative indefinites that are syntactically marked for negation by means of a [uNEG] feature. In chapter 8 I will elaborate this hypothesis and present my own theory of NC.

Apart from the question whether n-words are semantically negative or non-negative, I will also address the quantificational status of n-words: I will argue that n-words should be treated as non-quantificational indefinites that introduce a free variable, which needs to be bound by a higher existential quantifier.

In section 7.1 I will discuss the first approach that says that all n-words are negative quantifiers. In section 7.2 I will describe the second approach that considers n-words to be non-negative. In section 7.3 I will discuss the ambiguity hypotheses. In section 7.4 I will address the quantificational status of n-words and 7.5 will contain the final evaluation and conclusions.

7.1   N-words as Negative Quantifiers

In this section, I will discuss the first of the three approaches that have been dominating the literature for the last decade, which says that all n-words are semantically negative. In 7.1.1 I will discuss Haegeman & Zanuttini's (1991, 1996) analysis in terms of factorisation and in 7.1.2 I will discuss De Swart & Sag's (2002) implementation in a polyadic framework. I will demonstrate that both positions in the debate on the semantic status of n-words do not hold.

7.1.1   Factorisation and negative absorption

In this subsection I will first discuss and evaluate an approach to account for the semantics of NC that stems back to Zanuttini's original hypothesis from 1991 and is adopted in Haegeman & Zanuttini (1991), Haegeman (1995) and Haegeman & Zanuttini (1996). Haegeman and Zanuttini argue that the expression of *Wh* and negation is governed by similar syntactic and semantic mechanisms. Haegeman (1995) lists several empirical arguments that suggest a similar syntactic treatment of

Wh and negation. First both *Wh* and negation trigger subject-auxiliary inversion as is seen in (4).

(4)   a.   *Never* would I do that
        b.   What did you do?

Second, both *Wh* and negation are able to license NPI's such as English *any*-terms, as in (5):

(5)   a.   John does*n't* see anybody
        b.   Who saw anybody?

Third, both *Wh* and negation introduce so-called inner islands effects (6), in which an intervening operator in A-bar position prohibits movement out of an A-bar position.

(6)   a.   1. [Bill is here]$_i$ as they know t$_i$ [233]
             2. *[Bill is here]$_i$ as they don't know t$_i$
        b.   1. Why$_i$ did you think that they will fire Bill t$_i$
             2. *Why$_i$ did you wonder whether they will fire Bill t$_i$

A fourth correspondence between negation and *Wh* according to Haegeman and Zanuttini is the similarity between readings of multiple *Wh*-expressions and NC. Expressions containing multiple *Wh*-terms are interpreted as a single question at LF. Hence the two *Wh*-terms (each binding a separate variable) form together one *Wh*-operator that binds two variables as is shown in (7). The answers to such a question consist of one or more pairs of persons and things:

(7)   Who read what? John read the NY Times; Mary read the Washington Post.
        $Wh_x Wh_y[\textbf{do'}(x, y)] \rightarrow Wh_{x,y}[\textbf{do'}(x, y)]$[234]

Higginbotham & May (1981) and May (1989) provide a formal description of *Wh*-elements in terms of polyadic quantification by arguing that *Wh*-terms are unary quantifiers that in the same projection turn into *n*-ary quantifiers, binding *n* variables. Polyadic quantification can take place after a process of *factorisation*. Factorisation is the process, which describes what happens when two quantifying elements raise to the same projection under QR in order to turn from *n* monadic quantifiers into one *n*-ary polyadic quantifier. In the case of *Wh,* polyadic quantification takes place after factorisation, whereby the interrogative operator of the second *Wh*-element is transmitted into the first *Wh*-operator.
Haegeman & Zanuttini (1991) argue that factorisation only takes place if all *Wh*-elements stand in a proper syntactic configuration, i.e. spec head agreement within a particular functional projection (CP (or IntP in Rizzi 1997 terms)). This means that factorisation is syntactically driven. This syntactic motivation requires the presence of

---

[233] These examples are originally from Ross 1983, cited in Rizzi 1990 and Haegeman 1995.
[234] 'Wh_x' reads as 'For which x'; '$Wh_{x,y}$' reads as 'For which pair <x,y>'.

syntactic features of *Wh*-terms that drive movement to CP. Rizzi (1991, 1996) formalised this syntactic requirement by arguing that all *Wh*-elements obey the *Wh*-criterion.

(8)   *Wh*-Criterion:
        a.   A *Wh* operator must be in Spec-head configuration with $X°_{[Wh]}$
        b.   An $X°_{[Wh]}$ must be in Spec-head configuration with a *Wh* operator

Zanuttini (1991) takes NC to be similar to polyadic quantification of *Wh*-terms. Thus she extends this notion of polyadic *Wh* quantification to the field of negation and proposes a notion of Negative Absorption, which she defines as in (9).

(9) $[\forall x \neg][\forall y \neg]([\forall z \neg]) = [\forall_{x, y(, z)}]\neg$[235]

She takes n-words to be unary negative quantifiers, and NC to be the result of a process of factorisation and absorption. Hence the interpretation of (10) is equivalent to the formation of the pair-list reading in (7)b.

(10)   *Nessuno* ha telefonato a *nessuno*
        N-body has called to n-body
        'Nobody called anybody'
        $\forall_{x,y}[\neg\textbf{call}(x, y)]$

In a similar fashion she describes Negative Absorption between a single n-word and a negative operator as in (11).

(11) $[\forall x \neg]\neg = [\forall x]\neg$

If negative factorisation and absorption are similar to resumption of *Wh* quantifiers[236], negative factorisation and absorption can only take place under spec head configuration as well. Hence Rizzi's *Wh* criterion has to be extended with respect to negation. Haegeman & Zanuttini therefore introduce the so-called *NEG-Criterion*, formalised as in (12).

(12)   NEG-Criterion
        a.   A NEG-operator must be in Spec-head configuration with $X°_{[NEG]}$
        b.   An $X°_{[NEG]}$ must be in Spec-head configuration with a NEG-operator
        Whereby the following definitions hold:
               NEG-operator: a negative phrase in scope position
               Scope position: left-peripheral A'-position [Spec,XP] or [YP,XP].

---

[235] The round brackets indicate optionality.
[236] Resumption of quantifiers refers to the creation of one *n-ary* quantifier out of a sequence of n unary quantifiers.

This NEG-criterion triggers the movement of every n-word to a specifier or adjunct position of NegP. Note that this position cannot be the lowest specifier position as this position is occupied by the negative operator ¬ itself. The fact that the negative operator occupies a specifier position follows from the NEG-Criterion: in the case of single sentential negation without n-words the NEG-Criterion still applies and therefore the negative head marker is forced to be in spec head configuration with the negative operator. In Italian e.g. the negative head marker *non* is thus accompanied by a negative operator in Spec,NegP. Evidence for this assumption follows from example (13) where the negation blocks A-Bar movement of an adjunct in a lower clause to a Spec,CP position in a higher clause.

(13)   a.   Perche$_i$ ha detto che Gianni e partito t$_i$ Italian
            Why did you say John left?
            'Why did you say John left?'
       b.   *Perche$_i$ [$_{NegP}$ *Op$_¬$* *non* ha detto [$_{CP}$ che Gianni e partito t$_i$]]
            Why did neg you say John left?
            'Why didn't you say John left?'

In earlier work on the application on the NEG criterion (Zanuttini 1991, Haegeman & Zanuttini 1991), languages were assumed to vary cross-linguistically with respect to the moment of application of the NEG criterion: the NEG criterion applies at surface structure in West Flemish, and at LF in Romance languages. Therefore n-words are moved to the left of the negative marker *nie* in West Flemish before Spell Out, whereas in languages like Italian movement over *non* is postponed (14).

(14)   a.   S-Structure   dat [$_{NegP}$ *niemand$_i$ niet* [$_{Neg°}$ [t$_i$ *en* belt]]]   West Flemish
                            that n-body neg neg calls
                            'that nobody calls'
       b1.   S-Structure   [$_{NegP}$ e [$_{Neg°}$ *non* [ha telefonato *nessuno*]]] Italian
       b2.   LF   [$_{NegP}$ *nessuno$_i$* [$_{Neg°}$ *non* [ha telefonato t$_i$]]]
                            n-body neg has called
                            'that nobody has called'

Later, Haegeman (1995) replaces this assumption of cross-linguistic variation in the moment of application of the NEG-criterion by the assumption that all languages apply the NEG-criterion at surface structure. This is due to her adoption of a representational framework (cf. Brody 1995), in which the notion of *movement* is replaced by the notion of *CHAIN*. The NEG-criterion is applied to negative CHAIN's that are either headed by an abstract operator with the phonological content in foot position (e.g. Italian), or have the entire n-word in their head position (e.g. West Flemish) (15).

(15)   a.   [$_{NegP}$ *Op¬$_i$* [$_{Neg°}$ *non* [ha telefonato *nessuno$_i$*]]]   Italian
                └─────────────── CHAIN ───────┘

b.   … dat [$_{NegP}$ *niemand$_i$ niet* [$_{Neg°}$ [t$_i$ *en* belt]]]   West Flemish
                 └────── CHAIN ─┘

Note that for successful factorisation n-words are forced to move to a position to the left of the negative operator. This is in line with Zanuttini's assumption that n-words are universal quantifiers: if n-words are negative existential quantifiers, they could not occur to the left of the negative operator ¬ since no negative absorption could take place. Hence Zanuttini proposes semantic representation as in (16) for n-words:

(16) $[[Nessuno]] = \lambda P.\forall x[\textbf{person'}(x) \rightarrow \neg P(x)]$

This analysis of n-words faces several problems. I will list them briefly, and then discuss every problem in detail.

- Several important differences can be found between the syntax and semantics of *Wh* and negation.
- It remains unexplained why the Law of Double Negation does not apply.
- N-words do not only lose their negation after factorisation with another n-word, but they are also allowed to have a non-negative reading in other contexts.
- The analysis does not correspond to the unidirectional generalisation between negative head markers and NC.

Several important differences can be found between the syntax and semantics of Wh *and negation.*

Haegeman & Zanuttini's account relies on the syntactic and semantic similarities between *Wh* and negation. Hence if *Wh* and negation appear to be fundamentally different, the analysis loses ground. Therefore the three syntactic similarities ((4)-(6)) that Haegeman put forward as arguments in favour of similar treatment of *Wh* and negation should be evaluated. It turns out that these similarities are not as straightforward as Haegeman and Zanuttini take them to be.

Although the similarity between subject-auxiliary inversion under *Wh* and negation seems striking, it has been under attack by Giannakidou (1997) who presented three counterarguments against this observation:
(i) Giannakidou (1997) argues that languages like Spanish, Greek and French do not exhibit inversion after negative fronting. This result is not surprising given that negative inversion under NegP only takes place if the verb is overtly marked for negation, i.e. if it carries a negative feature. Then the distribution with respect to negative inversion follows immediately from the results of chapter 6. In languages like West Flemish or English it does; in languages like Spanish, French or Greek the negative feature is not realised on V$_{fin}$, but on the negative marker base-generated in Neg°. This accounts for the fact why not all languages with *Wh*-inversion also have

NEG inversion. Moreover, not every language exhibits *Wh*-inversion. *Wh*-inversion only takes place if the verb is marked for *Wh*, i.e. if it carries a *Wh*-feature. The similarity between *Wh*- and negative inversion is thus reduced to the fact that both *Wh* and negation may trigger inversion effects. Note that triggering of inversion effects is not restricted to these two phenomena. Topic and focus are also known to trigger inversion effects.

(ii) Giannakidou also claims that inversion after negative fronting is stylistically marked, whereas inversion under *Wh* fronting is not. But this is due to the fact that Spec,CP is not the natural landing site for n-words, whereas it is for *Wh*-elements. Movement from Spec,NegP to Spec,CP is only motivated by topicalisation, which in general triggers stylistic effects. The subject-auxiliary inversion is then the result of the application of the NEG criterion after topicalisation: the n-word in Spec,CP should be in spec head configuration with $C°_{[Neg]}$.

(iii) Giannakidou postulates that inversion is only triggered by sentential negation, and not by constituent negation, which is, according to her, not in line with Haegeman's claim:

(17)   a.   *Not* many years ago Paul was in love with Lucy
       b.   *Not many years ago was Paul in love with Lucy

But this is in fact a prediction that follows from the NEG-criterion: inversion effects are the result of the fact that a verb is marked for negation. Since (17) is an example of constituent negation, the verb cannot be marked for negation. Hence the NEG-criterion cannot apply on sentential level. If the NEG criterion applies, one should adopt a syntactic structure as in (18) where the NEG criterion is fulfilled within the adverbial constituent, licensing an abstract Neg°[237]:

(18)   [TP [NegP Not many years ago Neg°] [TP Paul was in love with Lucy]]

Hence Giannakidou's counterarguments against Haegeman's (1995) claim that *Wh* and negation exhibit large similarity with respect to their syntactic properties are convincing in the sense that the syntactic behaviour of *Wh* and negation as discussed above, should be treated as distinct phenomena. The syntactic similarity is a consequence of the fact that both negation and *Wh* can be subject to feature checking requirements in particular groups of languages. Hence, the fact that *Wh*-elements can be factorised is a result of *Wh*-movement that is triggered by means of feature checking. Factorisation of negative elements can be supported by the fact that *Wh* elements can also be factorised.

The question is then whether the examples in (5) (NPI licensing) and (6) (island effects) legitimise a similar syntactic or semantic analysis of negation and *Wh*. It has been shown that licensing of *any*-terms is related to the non-veridical nature of NPI licensers (Giannakidou 1999). Since negation and *Wh* are non-veridical, they are able

---

[237] Under the assumption that the temporal adjunct is a TP adjunct.

to license NPI's. The class of non-veridical elements is however not restricted to *Wh* and negation. As a consequence, the fact that both *Wh* and negation are able to license NPI's does not legitimise a similar treatment of multiple *Wh* and multiple negation.

The same holds for the island effects in (6). It is well-known that negation and *Wh* are not the only linguistic phenomena, which introduce islands. Moreover, the cross-linguistic uniformity of these island effects suggests that semantic constraints are involved. It has been argued by Szabolcsi & Zwarts (1993) and Honcoop (1998) that these islands are the result of downward entailing properties of introducers of islands. Recall that all downward entailment elements are non-veridical. Again it is the fact that both *Wh* and negation are non-veridical, which is responsible for the island effects, and hence a special similar treatment of multiple negation and multiple *Wh* cannot be supported on these grounds.

In sum, although *Wh* and negation share syntactic and semantic properties, such as inversion effects, the ability to license NPI's and certain island effects, these properties are not necessarily restricted to *Wh* and negation. Inversion effects can be seen as an effect of a mechanism of feature checking and the licensing of NPI's; the island effects are related to the non-veridical properties that Wh and negation share. Feature-checking mechanisms do not necessarily result in polyadic quantification (they may only lead to factorisation) and neither does non-veridicality. Hence the similarities between *Wh* and negation do not legitimise an analysis of NC in terms of polyadic quantification.

Apart from the differences that are mentioned above, two other differences between polyadic *Wh* quantification and NC are crucial for the proper evaluation of Zanuttini and Haegeman's proposals. First, polyadic quantification is supposed to create LF's that cannot be yielded without polyadic quantification. The reading in (19) is not equivalent to a LF with a monadic *Wh*-operator and an indefinite or existential quantifier. However, in the case of negation in NC languages, the LF's (20) are equivalent.

(19)   a.   Who read which book
            $Wh_{x,y}[$**person'**(x) & **book'**(y) & **read'**$(x,y)] \Leftarrow/\Rightarrow$
       b.   Who read a book
            $Wh_x \exists_y[$**person'**(x) & **book'**(y) & **read'**$(x,y)]$

(20)   *Nessuno* ha telefonato a *nessuno*   Italian
       N-body has called to n-body
       'Nobody called anybody'
       $\neg\exists_{x,y}[$**person'**(x) & **person'**(y) & **call'**$(x, y)] \Leftrightarrow$
       $\neg\exists x \exists y[$**person'**(x) & **person'**(y) & **call'**$(x, y)]$

Second, NC is clause bound (21)a whereas the formation of polyadic *Wh*-elements is not (21)b:

(21)   a.   *Nessuno* ha detto che *nessuno* ha telefonato   Italian
            $\neg\exists x[\textbf{say'}(x, \neg\exists y[\textbf{call'}(y)]]$
            $*\neg\exists_{x,y}[\textbf{say'}(x, [\textbf{call'}(y)]]$
       b.   Who did John say that read what?
            $Wh_{x,y}[\textbf{say'}(j, \textbf{read'}(x, y))]$

It remains unexplained why the Law of Double Negation does not apply.

A second argument against Haegeman's and Zanuttini's solution is that the comparison between multiple *Wh* and multiple negation is inadequate with respect to two facts: (i) contrary to the formation of a polyadic Wh-quantifier, the formation of a polyadic negative quantifier is subject to cross-linguistic variation; (ii) it remains unexplained why the Law of Double Negation does not always apply.
Note that one of the central arguments in favour of Haegeman's and Zanuttini's analysis was the resemblance with multiple *Wh*. However, interrogatives cross-linguistically give rise to LF's that contain only one *Wh*-operator binding multiple variables. If the comparison between multiple Wh and multiple negation is correct, the expectation is that multiple negation always gives rise to NC readings, in which the two negative quantifiers have formed one polyadic quantifier. But NC only occurs in a subset of the set of languages.
The fact that the formation of polyadic negative quantifiers is blocked in several natural languages is the result of the Law of Double Negation (LDN). This law cancels to negative quantifiers out against each other. However, if the semantic properties of negative quantifiers are cross-linguistically identical, as Haegeman and Zanuttini suggest, LDN is expected to apply to all languages. The fact that negative quantifiers seem to obey this law in only a subset of the set of languages is a clear indication that n-words are semantically different from negative quantifiers in DN languages.
Hence, the fact that multiple *Wh* allows the formation of polyadic quantification does not guarantee that this holds for other categories as well.

N-words do not only lose their negation after factorisation with another n-word, but they are also allowed to have a non-negative reading in other contexts

As has been shown in chapter 3, it is possible to license the presence of n-words by other elements than negation. This means that it is not possible to factorise the negation of the n-word with a higher negation. However, n-words cannot occur in every environment: the class of elements that licenses n-words is broader than the class of negative elements and seems to be a subset of the class of NPI-licensers. Herburger (2001) (citing Bosque 1980) lists a series of examples from Spanish, of which a sample is demonstrated in (22)-(24).

(22)   a.   Pedro compró el terreno <u>sin</u> contarselo a *nadie*[238]   Spanish
            Pedro bought the land without telling to n-body
            'Peter bought the land without telling anybody'
       b.   <u>Antec</u> de hacer *nada*, debes lavarle las manos
            Before of do n-thing, must.2SG wash.CL the hands
            'Before doing anything, you should wash your hands'

(23)   a.   <u>Dudo</u> que vayan a encontar *nada*[239]   Spanish
            Doubt.1SG that will.3PL.SUBJ find n-thing
            'I doubt they will find anything'
       b.   <u>Prohibieron</u> que saliera *nadie*
            Forbade.3PL that went_out.3SG.SUBJ n-body
            'They forbade anybody to go out'

(24)   a.   Es la <u>última vez</u> que te digo *nada*[240]   Spanish
            Is the ultimate time that you tell.1SG n-thing
            'This is the last time I tell you anything'
       b.   Juan ha llegado <u>más tarde</u> que *nunca*
            Juan has arrived more late than n-ever
            'Juan has arrived later than ever'

The examples in (22)-(24) are examples of Paratactic Negation, where prepositions
(22) or verbs (23) with a negative connotation are able to license n-words that are in a
subordinate (clause) position. The examples in (24) are similar to the previous ones:
última 'last' in (24)a is an adjective with a negative connotation and although
comparatives might not seem to have a negative connotation, they can easily be
paraphrased by means of a negative sentence: sentence (24)b is interpreted as 'Guan
has never arrived as late as now.' Although these examples are from Spanish, this
phenomenon is widespread under NC languages (e.g. cf. Giannakidou 1997 for
Greek). However, not every language exhibits the same pattern: Serbo-Croatian for
example allows the licensing of n-words in *before* clauses, but Polish does not. It can
be argued for that these licensers are in fact lexically decomposed into a negative
operator and a non-negative element. English *doubt* would then have the lexical
representation of 'not be sure.' In chapter 8 I will argue that this provides indeed a
possible account for Paratactic Negation, but this solution does not help Zanuttini,
since Zanuttini treats n-words as universal quantifiers, and universal quantifiers
cannot raise out of the clause (Szabolcsi 1997, Giannakidou 2000). The
quantificational status of n-words will be the subject of section 7.4.

The analysis does not correspond to the uni-directional generalisation between
negative head markers and NC.

---

[238] Herburger (2001): 297.
[239] Herburger (2001): 297.
[240] Herburger (2001): 298.

A final argument against Haegeman & Zanuttini's analysis is that in its present form it does not explain why the occurrence of NC is uni-directionally related to the syntactic status of NC. According to Haegeman & Zanuttini (1996) the NEG-criterion applies universally and hence whether a negative marker is overtly or covertly present does not matter. However, note that a framework in which NegP is only realised when there are [uNEG] features present, is in line with the NEG criterion approach. According to Haegeman & Zanuttini, NC is only possible as a result of factorisation under NegP, and only languages with a Neg° position can host a negative head marker. This could explain why negative head markers occur only in NC languages.

Hence the feature-checking mechanism that seems to underlie NC should be implemented in a syntactic framework that allows a flexible availability of functional projections.

7.1.2   NC as resumption of negative quantifiers

De Swart & Sag (2002) argue that Zanuttini's original notion of negative factorisation and absorption still suffers from a lack of compositionality and is an ad hoc mechanism that serves no other goal than to account for NC effects. Although Zanuttini's analysis relies crucially on the similarity between the semantics of multiple *Wh* and negation, De Swart & Sag argue that her analysis lacks a proper framework from which negative absorption immediately follows. Hence De Swart & Sag incorporate NC in the polyadic framework that has been developed to account for the fact that multiple *Wh*-terms are interpreted as a single interrogative operator. They focus on examples in Romance languages (mainly French), but claim that their approach of NC can in principle be extended to any language.

Sentences in (substandard) French and (substandard) English containing two n-words are ambiguous between an NC and a Double Negation reading.

(25)   a.   *Personne* (*n'*) a *rien* fait   French
             N-body (neg) has n-thing done
             NC: 'Nobody did anything'
             DN: 'Nobody did nothing'
       b.   *Nobody* did *nothing*   English
             NC: 'Nobody did anything'
             DN: 'Nobody did nothing'

Rather than accounting for these multiple readings in terms of structural or lexical ambiguity, De Swart & Sag argue that the ambiguity follows from two different mechanisms of quantification: (i) iteration of multiple monadic quantifiers and (ii) quantifier resumption.

Binary resumption is defined as follows: if two 'similar' quantifiers both bind variables of a subset of a domain of discourse E, the resumptive quantifier binds pair

variables that are members of a subset of E^2. Extending this to *n-ary* quantifiers, *n-ary* resumption is defined as follows:

(26) $Q'_E{}^{A_1, A_2, \dots, A_k}(R) = Q_{EK}{}^{A_1 \times A_2 \times \dots \times A_k}(R)$,
         whereby $A_1, A_2, \dots, A_k \subseteq E$ and $A_1 \times A_2 \times \dots \times A_k, R \subseteq E^K$

Assuming that quantifier resumption is optional, both readings can be achieved.

(27)   a. $[NO_E{}^{HUMAN}, NO_E{}^{THING}]$ (DO) $\Leftrightarrow$
              $\neg\exists x \neg\exists y[\textbf{Person}(x) \ \& \ \textbf{Thing}(y) \ \& \ \textbf{Do}(x, y)]$
         b. $[NO'_E{}^{HUMAN, THING}]$ (DO) $\Leftrightarrow$
              $[NO_{E^2}{}^{HUMAN \times THING}]$ (DO) $\Leftrightarrow$
              $\neg\exists x \exists y[\textbf{Person}(x) \ \& \ \textbf{Thing}(y) \ \& \ \textbf{Do}(x, y)]$

De Swart & Sag show that NC readings are in fact comparable to resumptive readings since NC relations can be modified by *sauf* 'except' clauses, a standard diagnostic test for resumptive readings.

(28)   *Personne n*'a parlé a *personne*, sauf Marie a son frère.[241]   French
         N-body has talked to n-body, except Marie to her brother
         'Nobody talked to anybody, except Mary to her brother'

The question then rises why the preferred reading in English is Double Negation, whereas in French it is NC. According to De Swart & Sag this has however nothing to do with the language system itself, but is a matter of language use. De Swart & Sag relate this outcome to the position of a language in the Jespersen Cycle and argue that languages vary with respect to the DN vs. NC interpretation of multiple negative expressions along the lines of the Jespersen Cycle[242].

Two issues remain open for De Swart & Sag: (i) their treatment of the negative operator and (ii) the occurrence of Paratactic Negation (PN). Since their approach of resumption of negative quantifiers already yields a single negation in semantics, the contribution of the negative operator seems to be semantically vacuous. Their solution to this problem is to assume that negation is an operator that does not bind a variable. Being a zero quantifier, it participates in the resumptive quantification of negative quantifiers without changing the argument structure of the sentence[243]. The only condition for participation in the concord relation is that the zero operator shares some

---

[241] Taken from De Swart & Sag (2002): 388.

[242] Note that this is only partially true. Jespersen Phase I-IV languages are all NC languages, but only some Phase V languages are DN languages. Hence, not every languages exhibits diachronic variation with respect to NC, e.g. Yiddish has remained an NC language.

[243] The term 0 quantifier falls back to Lindström (1996) characterization of quantifier types. Functions from Pow(E) to truth values are defined as quantifiers of type <1>. Functions from Pow(E) to a quantifier type <1> are <1,1>. Functions from propositions to truth values can be seen as functions not binding any variable and therefore as <0> quantifiers.

property with the other negative quantifiers. De Swart & Sag argue that this property is the semantic anti-additive feature that both negative quantifiers and the negative operator have in common.[244] The analysis of negative operators as zero quantifiers can be extended to other negative elements, such as prepositions like *without*. De Swart & Sag take French *sans* 'without' to be a propositional modifier, similar to the negative operator, that due to its anti-additive properties is allowed to participate in the quantifier retrieval[245].

This implementation of NC in a polyadic quantification framework has one major theoretical advantage: rather than to account for NC in a syntactic way (through the NEG Criterion) and a semantic way (by means of factorisation and absorption) De Swart & Sag need only a semantic mechanism to derive the proper semantics. Another advantage is that polyadic quantification has been motivated independently (not only to derive pair-list readings, but also with respect to quantifiers binding a reflexive pronoun), whereas negative absorption is a mechanism that has only been stipulated to account for NC.

The absence of any underlying syntactic constraints raises two major consequences for a theory of NC: (i) how to account for the locality effects, such as clause boundedness of NC relations; and (ii) how to account for cross-linguistic variation of the possibility of NC.

De Swart & Sag answer the first question by adopting Reinhart's (1997) and Winter's (1997) observation that the scope of NP quantifiers is always clause bound and since they treat n-words as inherently negative quantifiers, clause boundedness of NC follows from general constraints on QR. Note that this analysis forces De Swart & Sag to account for resumption of multiple *Wh* terms without analysing these *Wh* elements as quantifiers, but as indefinites. The quantificational nature of n-words will be discussed in section 7.4.

The other consequence of a strict semantic analysis for NC is that they have to explain the cross-linguistic variation with respect to the occurrence of NC. De Swart & Sag relate NC to the Jespersen Cycle, by arguing that NC is the result of reinterpretation of indefinite expressions such as Early French *personne* 'anybody' as inherently negative elements. French used to be a Double Negation language in which indefinites enforce the single expression of negation. As single negative readings can be the result of only one negative operator, or of resumption of multiple negative elements, indefinite non-negative elements such as *personne* are reanalysed as negative quantifiers participating in an NC reading. Hence De Swart & Sag argue that, whereas languages have both NC and DN readings available for multiple negative expressions, languages vary diachronically with respect to the preferred reading.

---

[244] An exception is made for French *pas* and English *not* that in most varieties do not seem to participate in the concord relationship. De Swart & Sag argue that these adverbial modifiers are verbal complements, that due to some lexical constraint have to remain intact in the quantifier storage and can therefore not be subject to quantifier retrieval. Languages vary with respect to this lexical constraint.
[245] The assumption that *sans* 'without' is a prepositional modifier is motivated by the fact that *sans* selects infinitival verbal complements, e.g. *sans dire rien* 'without saying anything'.

Although the absence of a syntactic basis in this theory may lead to an increase in its theoretical power, it also leads to a series of empirical problems. Partly this may be the case because this approach is still programmatic in nature, and not every issue has been carefully dealt with, but other problems are a direct consequence of the predictions that have been made within this framework. In short, De Swart & Sag's approach faces the following problems:

- The assumption that NC is the result of resumptive quantification vis à vis iteration of monadic quantifiers is weakly motivated.
- Several syntactic and semantic constraints on NC do not follow from the theory.
- The analysis does not correspond with the generalisation between negative heads and NC.

The assumption that NC is the result of resumptive quantification vis à vis iteration of monadic quantifiers is weakly motivated.

The fact that it is possible to account for NC in terms of polyadic quantification does not legitimise such an analysis. An argument against De Swart & Sag's analysis is that the negative resumptive quantifier is reducible to an iteration of monadic quantifiers. This would be an argument in favour of analyses that take n-words to be non-negative existential quantifiers.

(29) $[NO'_E{}^{HUMAN,THING}]$ (DO) $\Leftrightarrow$
       $[NO_{E2}{}^{HUMANxTHING}]$ (DO) $\Leftrightarrow$
       $\neg\exists x\exists y[\mathbf{Person}(x)\ \&\ \mathbf{Thing}(y)\ \&\ \mathbf{Do}(x, y)] \Leftrightarrow$
       $[NO^{HUMAN}, SOME^{HUMAN}]$ (DO)

Resumptive quantification is generally motivated by the fact that these readings cannot be reduced to iterations of monadic quantifiers, as is the case with resumptive negative quantifiers. This criticism also holds for Zanuttini's analysis. De Swart and Sag provide four counterarguments against this position, arguing that their analysis is indeed well motivated.

The first counterargument put forward by De Swart & Sag concerns the fact that language in some cases 'does go beyond the Frege boundary' and that polyadic quantification has been well motivated for a wide range of facts (cf. Keenan & Westerståhl 1997). Although it is certainly true (contrary to Haegeman & Zanuttini's proposals) that this proposal is embedded in a larger and independently motivated framework, it still does not follow why NC should be treated as an instance of polyadic quantification. Each instance of polyadic quantification should be well motivated and the fact that other complex constructions should be analysed in terms of resumption does not motivate a polyadic quantificational account of NC.

The second counterargument that De Swart & Sag present concerns the fact that NC readings can be modified by *except* phrases (28). However, this test cannot be applied in all cases of alleged polyadic constructions. Some polyadic constructions cannot be modified by an *except* phrase, as in (30).

(30)   *Personne ne* veut parler a *personne*, sauf Jean au diable   French
              N-body neg wants talks to n-body, except Jean to.the devil
              'Nobody wants to talk to anybody, except John to the devil'

In this example the resumptive quantifier in the matrix clause only refers to pairs of variables that obey a De Re reading, since the second negative quantifier *personne* has scoped over the modal verb *veut* 'want'. The interpretation of the resumptive reading of (30) reads as 'there is no pair <x, y> such that x wants to talk to y, but there is a pair <Jean, le diable> of which the first member wants to talk to the second member.' This interpretation presupposes the existences of the devil, whereas (30) can be uttered felicitously with a De Dicto reading for *le diable*. So modification by *sauf* is not a proper criterion to motivate resumptive quantification.

Third, they argue that other instances of non-reducible polyadic constructions can be translated into first-order logic, e.g. reflexive pronouns that are bound by a quantificational subject.

(31)   Every boy likes himself
$[EVERY^{BOY}, SELF] (LIKE)$
$\forall x[like (x, x)]$

The resumptive quantifier in (31) cannot be reduced to an iteration of monadic quantifiers, but can be translated by a reading that only consists of a monadic quantifier. However, it remains unclear whether (31) is a proper example of resumptive quantification, since the *except* phrase cannot modify pairs of variables that are bound by the polyadic quantifier. De Swart & Sag argue that modification by *except* phrases forms one of the major diagnostics to determine polyadic constructions. (32) is an indication that the reflexive variable is bound by a monadic quantifier rather than resumptive quantifier.

(32)   Every boy likes himself, (*except John himself)

Fourth, De Swart & Sag argue that the translation of a resumptive negative quantifier into an iteration of monadic quantification is only possible if n-words are treated as existential quantifiers (29). Since May (1989) argues that (at least) English *no-one* cannot be an existential quantifier, this would be an argument against reducing English resumptive NC readings into iterations of monadic quantifiers.
This is however untrue. Reducibility into monadic quantifiers can also be the case if all n-words are treated as universal negative quantifiers:

(33)   N-body neg likes n-thing
        $[NO^{PERSONxTHING}](LIKE)$
        $[EVERY^{PERSON}, NO^{THING}](LIKE)$
        $\forall x[\textbf{person'}(x) \rightarrow \forall y[\textbf{thing'}(y) \rightarrow \neg\textbf{like'}(x,y)]]$

Hence I argue that the four counterarguments that De Swart & Sag provide against the position that resumptive NC readings can be reduced to iterations of monadic quantifiers and that such an analysis is to be preferred, are not well motivated.

Several syntactic and semantic constraints on NC do not follow from the theory.

Another argument against De Swart & Sag's approach concerns the fact that it does not account for a number of syntactic and semantic constraints that govern NC. Before discussing these constraints, it should be acknowledged that they do not claim to have answers for all these questions since their account is essentially programmatic in nature. Their main aim is to show that NC fits in a polyadic framework, but such a theory may require additional machinery to account for every restriction. I will discuss three properties of NC that remain unexplained within this approach.
First, this approach should account for the clause boundedness of NC relations. De Swart & Sag argue that quantifier retrieval is constrained to clauses and that finite verbs are required to have an empty quantifier store. This covers the clause boundedness of standard NC relations, but De Swart & Sag stipulate that this claim does not hold for subjunctive verbs with negative quantifiers in their store. This assumption has been made to account for several PN effects, but is not independently motivated. In fact, as I will discuss in section 7.4, subjunctives generally do not allow for QR across the clause. E.g. verbs such as *believe* are known to select subjunctive clauses cross-linguistically, but these quantifiers cannot raise out of the subjunctive clause.

(34)   John believed that he bought every book
        $*\forall x.[\textbf{book'}(x) \rightarrow \textbf{believe'}(j, \textbf{buy'}(j, x))]$

Another argument concerns the possible interference with an NC relation by the negative marker. De Swart & Sag propose a lexical constraint on the possibility for negative adverbs to participate in NC relations. French *ne*, Middle Dutch *en/ne* or the Slavic negative markers are allowed to establish an NC relation, French *pas* or English *not* are not. However, there is third class of negative markers that, depending on their position in the syntactic clause, may or may not participate in an NC relation. Good examples are West Flemish *nie* or Italian *non*. West Flemish *nie* is allowed to be in an NC relation, but any n-word that is c-commanded by *nie* yields a Double Negation reading (35). The opposite is the case with Italian *non*, which introduces Double Negation if it is c-commanded by an n-word (36).

(35)   a.   Valère ziet *niemand nie*   West Flemish
            Valère sees n-body neg
            NC: 'Valère doesn't see anybody'
       b.   Valère ziet *nie niemand*
            Valère sees neg n-body
            DN: 'Valère doesn't see nobody'

(36)   a.   *Non* ha telefonato *nessuno*   Italian
            Neg has called n-body
            NC: 'Nobody called'
       b.   *Nessuno non* ha telefonato
            N-body neg has called
            DN: 'Nobody didn't call'

De Swart & Sag do not present an explanation for this phenomenon.

A third argument against De Swart & Sag's approach is the status of NC and Double
Negation cross-linguistically. According to De Swart & Sag the linguistic competence
allows for both readings cross-linguistically. The fact that one reading is preferred
over the other is the result of factors that play a role in language use. The question is
whether such a strict claim holds.
First there are Double Negation languages that completely disallow NC-like readings,
including Emphatic Negation readings (see 3.3.4). Examples of these languages are
Swedish and Norwegian. By arguing that multiple negative expressions in these
languages do have underlying NC readings, that are unavailable for reasons of
language use, this theory of NC overgeneralises. The ambiguity between an NC and a
Double Negation reading is less straightforward than the authors assume. Probably
this is due to the range of their empirical domain. Contrary to what the title of their
paper 'Negative Concord in Romance' suggests, it is mainly about English and
French. I have already shown in chapter 5 that both languages occupy an unstable
position in the Jespersen Cycle: French, since the increasing absence of the preverbal
negative marker makes it a candidate to change from an NC language into a Double
Negation language (Phase IV to Phase V); English, since it is on its way of becoming
a Phase I language and allows NC in almost all its substandard varieties. Therefore
ambiguity seems plausible in these languages, but this is not a universal property of
languages.
Second, the proposed link between the preferred reading and the Jespersen Cycle is
not empirically motivated. De Swart & Sag suggest that languages with a preverbal
negative marker allow indefinite expressions (NPI's) to emphasise the negation and
that these NPI's can be reinterpreted as negative quantifiers, changing the language
from a Double Negation reading into an NC language. However, although this might
have been the case for French, this is certainly not the case in many other languages
where negation was emphasised by the presence of an n-word that already had a
negative connotation. The Middle Dutch n-word *niemen* 'n-body' stems from *ne
iemen* 'neg somebody'. The origin of n-words is generally not a non-negative

indefinite, but rather a combination of a negative marker and a negative expression. Hence NC cannot simply be taken to be the result of reanalyzing NPI's as negative quantifiers.

The analysis does not correspond with the generalisation between negative heads and NC.

Finally, De Swart & Sag's approach is incompatible with the generalisation described in chapter 5, which links preverbal negative markers unidirectionally to NC. Rather than to develop a theory that accounts for this correlation and to develop a strictly semantic theory about NC as a result of resumptive quantification, it seems more plausible to develop a theory that explains NC on the basis of its empirically well-grounded syntactic constraints. Given the syntactic nature of the constraints on NC, I argue that a syntactic approach is to be preferred.

7.1.3   Concluding remarks

To conclude this section, I briefly summarise the main conclusions: I argue that Zanuttini and Haegeman's assumption to treat n-words in a similar fashion as *Wh* terms is not well motivated, and that analyses based on this assumption face problems. First, the motivation to analyse n-words as negative quantifiers was because of its resemblance with *Wh*. However, closer examination of this correspondence turned out that there are serious differences between multiple negation and multiple *Wh* constructions: NC is clause bound, multiple *Wh* is not, multiple Wh cannot be reduced to a single *Wh* operator and an existential quantifier, NC constructions can.
Second, these analyses fail to explain why languages differ cross-linguistically with respect to the occurrence of NC. Especially the question why some languages would and others would not allow polyadic quantification of negative quantifiers remains unanswered.
Third, n-words may have a non-negative reading in many downward entailing contexts, which cannot be accounted for easily in this framework.
Finally, the uni-directional relation between negative heads NC is not predicted by these analyses, although the original proposal of the NEG criterion left space for such a correspondence.

On the basis of the discussion that I have presented in this section, I conclude that n-words should not be taken as negative quantifiers. In the next chapter I discuss the opposite view that takes n-words to be non-negative.

7.2   N-words as non-negative

Opposing the view that n-words are inherently, i.e. semantically negative, the approach that has been introduced by Laka (1990) and that was further elaborated by Ladusaw (1992) consists of a view in which n-words are semantically non-negative. The central question within this approach is not how the disappearance of negation can be explained without losing compositionallity, but how to account for the negation in the semantics of NC sentences. If n-words do not contribute to the negative semantics of a sentence, how can the interpretation of a sentence like (37) contain a negation at all?

(37)   *Nessuno* ha parlato con *nessuno*   Italian
         N-body has talked with n-body
         'Nobody talked to anybody'

In this section I will first discuss Ladusaw's (1992) position and then Giannakidou's (2000) theory on NC. Giannakidou's proposal can be thought of as a semantic radicalisation of Ladusaw's original theory, which is partly due to her different perspective on NPI licensing.

7.2.1   N-words as non-negative indefinites

Ladusaw argues that Zanuttini's (1991) syntactic account of NC lacks a proper semantic basis, which he tries to provide. His central idea is that n-words in NC languages are non-negative indefinites in the sense of Heim (1982), and do not have any quantificational force of their own, but only contribute an unbound variable and a descriptive context. This implies that all n-words need to be roofed (i.e. unselectively bound) by a negative operator. This is essentially synonymous to saying that n-words are equivalent to indefinite NPI's such as *any*-terms. The difference is that n-words have a more restricted distribution than *any*-terms, e.g. because the first category may only be licensed by anti-additive operators and the latter may also occur in other non-veridical contexts. Hence Ladusaw treats n-words on a par with NPI's occupying the opposite position in the debate about the semantic nature of n-words. As n-words do not have any negative force of their own, two questions immediately arise: (i) where does the negation come from in NC sentences that contain only n-words; (ii) what licenses these NPI's?
In sentences like Italian (38) the answer immediately follows. There is an anti-additive negative operator *non* 'neg' that is responsible for the expression of negation and that licenses present n-words. Additional evidence for this analysis comes from the fact that no n-word is allowed to precede the negative marker in Italian.

(38)   *Non* ha telefonato *nessuno*   Italian
        Neg has called n-body
        'Nobody didn't call'

(39)   **Nessuno non* ha telefonato   Italian
        N-body neg has called
        'Nobody called'

A problem for this analysis is however formed by sentences like (37), in which an overt anti-additive operator is absent. Ladusaw accounts for this problem by arguing that the negative operator does not necessarily have to be lexically present, but can also be configurationally present, i.e. by introducing some additional structure, such as a negative phrase NegP. The crucial question is then what licenses the introduction of this extra configurational material, since abstract structure cannot be introduced 'willy nilly.' The answer to this question is that the presence of n-words licenses the abstract negative operator, which in its turn licenses the n-words (self-licensing in Ladusaw's terms). Hence, contrary to standard NPI's such as *any*-terms, n-words may license themselves.

Ladusaw provides an analysis in terms of GPSG and GB in order to show that this mechanism of self-licensing does not suffer from circularity. A crucial observation for this is that sentential negation in NC languages is either expressed by a negative marker in preverbal position or by an n-word that precedes the verb. Sentences in which both are lacking are generally ill-formed in NC languages, or give rise to constituent negation at most.

(40)   Ha *(*non*) telefonato *nessuno* (a *nessuno*)   Italian
        Has neg called n-body (to n-body)
        'Nobody called (anybody)'

Ladusaw proposes that n-words can only be licensed if either the specifier position or the head position (or in some languages both positions) of NegP are filled. In the case of a negative operator this is done by assigning the negative operator a Neg° position; in the case of an absent negative operator one of the n-words moves to a Spec,NegP position and thus licenses the presence of NegP, which in its turn licenses all n-words.

(41)   a.   *Non* ha telefonato a *nessuno*   Italian
              [$_{NegP}$ [$_{Neg°}$ *non*$_{[NEG]}$] [$_{TP}$ ha telefonato a *nessuno*$_{[NEG]}$]]
        b.   *Nessuno* ha telefonato a *nessuno*
              [$_{NegP}$ *Nessuno*$_{[NEG]}$ [$_{Neg°}$?] [$_{TP}$ ha telefonato a *nessuno*$_{[NEG]}$]]

Ladusaw's position is essentially programmatic in the sense that his proposal is not fully embedded in a syntactic or semantic framework. In order to be evaluated it needs to be implemented in an appropriate syntactic or semantic framework. As Ladusaw's proposal relies crucially on the similarity between n-words and NPI's, the choice for

adopting a proper framework to implement his ideas depends on the treatment of NPI's like English *any*-terms. The problem is however that the behaviour of n-words is crucially different from that of 'standard NPI's'. This means that a theory that treats n-words as NPI's needs some additional machinery to account for the differences between the two kinds of terms. A theory that analyses n-words in different terms than NPI's needs to explain the large similarity between the two classes. An example of the first type of theory is Giannakidou (2000). This will be discussed in the next subsection. A proper implementation of Ladusaw's program in syntactic terms will form the core of my own explanation for NC to be discussed in chapter 8 (cf. also Acquaviva 1995, Giannakidou 1997 for implementation in a syntactic framework).

Problems for Ladusaw's proposal that are related to the similarities between n-words and NPI's will be discussed in the subsequent subsection. Now I will describe some other problems related to Ladusaw's position that challenge the alleged non-negativity of n-words in general.

Obviously, cases in which n-words do exhibit negative behaviour are problematic for this approach. Contexts, in which n-words seem to be inherently negative, form counterarguments against Ladusaw's approach. I will discuss three such contexts.

- N-words in fragmentary answers, disjunction and coordinated structures.
- Instances of event-bound n-words.
- N-words in preverbal position.

N-words in fragmentary answers disjunction and coordinated structures

Fragmentary answers form a challenge for the non-negativity approach, since n-words are allowed to occur in fragmentary answers, contrary to NPI's:

(42)   ¿Quién vino? *Nadie* / *Un alma[246]   Spanish
        Who came? N-body / a single soul
        'Who came? Nobody / a single soul'

The n-word occurring in the short answer in (42) is allowed, whereas the NPI is not. Zanuttini (1991) and Herburger (2001) suggest that this kind of example indicates that n-words do in fact express negation themselves. The only way out for the non-negativity approach is to argue that n-words do in fact license themselves in this context as well and that some abstract structure is responsible for licensing the negation.
The problem then is how to account for the fact that n-words are allowed to license themselves, whereas an NPI with similar semantic contents is not. Hence these examples do not contradict the non-negativity approach, but they are a problem for

---

[246] Example from Herburger (2001): 309.

analyses that take n-words and NPI on a par. I will continue the discussion of this problem in 7.2.2.

The same holds for other elliptic structures such as VP conjunctions or disjunctions, as the example in (43) shows.

(43)   Me caso contigo o con *nadie*   Spanish
        I marry with.you or with n-body
        'I marry you or nobody (else)'

Disjunction is always based on coordination of two similar projections. As the latter part of the disjunction in (43) is a PP, containing a DP *nadie*, this would, according to Herburger (2001), be an example in which the n-word cannot be licensed by some additional abstract structural feature [NEG] in the second clause, nor in the first clause (as the first clause is not under the scope of negation). Hence the n-word should be semantically negative in this case.

However, the debate about conjunctions, disjunctions and coordination contains more pluriformity than Herburger suggests. Coordinations generally have the surface structure in (44). Hence, two possible underlying structures may apply: a structure in which the two YP's are coordinated and a structure in which XP is part of a coordinated ZP and ZP_2 is deleted under ellipsis with the exception of YP.

(44)   XP YP_1 *Op* YP_2

(45)   a.   [XP [YP_1 *Op* YP_2]]
        b.   [[$_{ZP1}$ XP YP_1] *Op* [$_{ZP2}$ ~~XP~~ YP_2]]

The question is then of course what licenses the ellipsis in the structure in (45)b. The standard answer refers to identity with the first XP but in a sense this is the weakest approach to the licensing question. A stronger answer could be: any material of which the (covert) presence is also triggered by the (syntactic) context licenses the ellipsis. The latter strategy may account for the structure in (46)b. The presence of *nadie* requires a negative marker in the second TP, which is deleted under ellipsis. The deletion of the second verb takes place under identity, the deletion of the negative marker by the n-word that, by its appearance in postverbal position, marks the presence of its licenser. Note that this is a reformulation of Ladusaw's principle of self-licensing.

(46)   a.   [$_{TP}$ Me caso [$_{PP}$ contigo] o [$_{PP}$ con *nadie*]]
        b.   [$_{TP}$ Me [$_T$ caso [$_{PP}$ contigo]] o [$_T$ [$_{NegP}$ ~~no caso~~ [$_{PP}$ con *nadie*]]]]

Hence, Herburger's argument does holds only under the assumption that underlying structures like (46)b are not allowed. However, she does not provide grounds to legitimate this assumption. Note again, that the analysis in (46)b distinguishes between n-words and NPI's, as the sentence cannot be paraphrased by a English

translation consisting of *any*-terms, or a Spanish variation with *un alma* 'a single soul.'

(47)   a.   *I marry you or anyone   English
       b.   *Me caso contigo o con un alma   Spanish

Thus the first series of arguments by Herburger against Ladusaw's position are proven insufficient as long as n-words are treated distinctly from standard NPI's.

Instances of event-bound n-words

The second argument is based on the possibility of n-words occuring in postverbal position. Without being licensed by a negative marker or an n-word in preverbal position, they still seem to express negation by themselves. An example from Spanish (again by Herburger) is given in (48).

(48)   El bébé este mirando a nadie   Spanish
       The baby is looking at n-body
       'The baby is looking at nothing'

In these cases the n-word is interpreted as negative in postverbal position without a negative marker in preverbal position. Apparently n-words may occur by themselves without being licensed. However the reading of (48) differs from an NC reading in which there is a preverbal negative marker *no*. The only reading (48) may get is a reading in which the existential quantifier binding the event variable scopes over the negation.

(49) $\exists e[\textbf{Look'}(e)\ \&\ \textbf{Agent}(baby,e)\ \&\ \neg\exists x.[\textbf{Thing'}(x)\ \&\ \textbf{Theme}(x, e)]]$

This explains why there is no preverbal negative marker in (48): in the case of a preverbal negative marker the negation would scope over the quantifier that binds the event variable and the sentence would get a different reading. Still, this argument does not provide evidence against the non-negative approach. It is not excluded that inside the *v*P a silent negation is active. This silent negation may be licensed by the n-word. The question is then why the silent negation may not have phonological contents.
One could argue that this negation is not spelled out, since there is no need to do so. The presence of the n-word in object position already triggers the presence of a NegP, so this does not have to be made visible. The reason why in general the negative marker has to be visible is for scope reasons. Contrary to (48) the sentence (50) (with an NC reading) expresses sentential negation. Without the negative marker self-licensing still requires an abstract negation to be included. As this abstract negation will be included in a position as low as possible, a sentential negation reading is ruled out, since the negation is located inside *v*P and sentential negation is the result of a negative operator that scopes over the entire *v*P in order to bind the event variable that

has been introduced by v^o. The negative head is banned from being spelled out in lower position, because there is no need to do so, and hence it is ruled out under minimalist assumptions.

(50)   El bébé *no* este mirando a *nadie*   Spanish
        The baby neg is looking at n-body
        'The baby isn't looking at anything'

N-words in preverbal position

The final argument given by Herburger is why preverbal n-words seem to express negation by themselves in preverbal position (cf. (51)).

(51)   *Nadie (*no)* vino[247]   Spanish
        N-body neg came
        'Nobody came'

As have already demonstrated in chapter 3, this is not a general property of NC languages, but a property of Non-Strict NC languages such as Spanish and Italian. Most NC languages, such as Czech, do not have this property and require the presence of a preverbal negative marker.

(52)   a.   *Nikdo ne*volá   Czech
              N-body neg.calls
              'Nobody is calling'
        b.   **Nikdo* volá
              N-body calls
              'Nobody is calling'

The fact that the preverbal negative marker is not visible is not an argument against the Ladusaw approach. At most it is an argument against an analysis of Non-Strict NC languages in terms of non-negative n-words. I will show in the following chapter that the distinction between Strict and Non-Strict NC is the result of the syntactic/semantic properties of the negative marker in these languages and I will present an account of the facts in (51) there.

As long as n-words are not confused with NPI's, arguments against Ladusaw's approach do not hold, but additional syntactic accounts may be required. We saw that such syntactic accounts can be motivated on independent grounds.

---

[247] This sentence can be well-formed if the subject is focussed. In that case the sentence yields a Double Negation reading.

7.2.2   N-words as Affective Items

In the previous subsection it became clear that Ladusaw's original approach left space for different interpretations. NC can be regarded as some form of syntactic agreement, or as a special instance of negative polarity. Whereas in the previous subsection I emphasised that n-words are crucially different from NPI's, in this subsection I will discuss an analysis put forward by Giannakidou (2000) that considers n-words as polarity items. Although her data are primarily from Greek, her analysis applies also to other languages, such as Catalan, Polish or Hungarian.

Giannakidou's account of NC is an application of her treatment of Affective Items. AI's form a superset of the set of NPI's and consist of all elements that can only be uttered felicitously in a particular semantic context C. According to this definition, n-words are AI's, since they cannot occur in every context. Hence constructions involving n-words are by definition instances of AI's licensed by a proper licenser.

Giannakidou distinguishes two different paradigms of n-words in Greek: emphasised and non-emphasised n-words. These series differ with respect to the number of contexts that can license them. Emphasised n-words can be licensed by negation, or prepositions like *without* or *before*. Unemphasised n-words can also be licensed in all non-veridical contexts, including interrogatives, imperatives, etc. The behaviour of unemphasised n-words is similar to that of English *any*-terms, whereas emphasised n-words exhibit almost the same behaviour as standard n-words in NC languages. Therefore I consider the elements that Giannakidou refers to as unemphasised n-words to be indefinite AI's that need to be licensed by a non-veridical context. However, note that unemphasised elements (similar to English *any*-terms) fall out of the definition of n-words as has been formulated in subsection 3.1.2 (repeated in (28)) since they cannot introduce a negative context themselves.

(53)   An *n-word* is an indefinite or quantifying element that only under certain well-defined conditions introduces a negative context.

There is no context available in which the unemphasised element introduces a negative context: unemphasised n-words, contrary to standard n-words, are not allowed to precede the negative marker *dhen* (54) and they are not allowed to occur in fragmentary answers (55), whereas their emphasised counterparts are able do do so. Moreover, Giannakidou observes that unemphasised n-words can be licensed in non-negative non-veridical contexts (56). Emphasised n-words are only allowed to occur in anti-veridical contexts, i.e. when they are licensed by a *negative element* (57).

(54)   *KANENAS/*Kanenas dhen* ipe *TIPOTA*   Greek
         N-body/anybody neg says n-thing
         'Nobody says anything'

(55)   Ti idhes? *TIPOTA/*tipota*   Greek
       What saw.2sg? N-thing/anything
       'What did you see? Nothing. Anything'

(56)   a.   Pijes {*pote/*POTE*} sto Parisi?   Greek
            Went.2SG ever/n-ever to Paris?
            'Did you ever go to Paris'
       b.   Elpizo na emine {*kanena/*KANENA*} komati
            Hope.1sg SUBJ left.3sg any/n- piece
            'I hope there is any piece left'

(57)   a.   I Theodora *(*dhen*)   Greek
                 enekrine {*kanena/KANENA*} sxedhio[248]
            The Theodora neg approved any/n- plan
            'Theodora didn't approve any plan'
       b.   *(*xoris*) na dhi {*kanenan/KANENAN*}
            without SUBJ see.3SG anybody/n-body
            'without seeing anybody'

Since Giannakidou's unemphasised n-words do not count as n-words under the definitions of section 3.1 and do not behave like standard n-words, I will only refer to emphasised n-words (in Giannakidou's terms) as n-words. Giannakidou's unemphasised n-words will be treated as general AI's such as English *any*-terms.

Giannakidou accounts for the differences between emphasised and non-emphasised n-words in Greek by arguing that this is due to the quantificational nature of emphasised n-words: unemphasised n-words are mere indefinites, which have no quantificational force of their own, whereas emphasised n-words should be considered as quantificational. It is known that quantifiers cannot scope out of their clause. Giannakidou takes the fact that NC is clause-bound as a central argument for the quantificational nature of Greek (emphasised) n-words, since their locality restrictions are similar to those of quantifiers.[249]

The assumption that (emphatic) n-words are non-negative quantifiers enables Giannakidou to present a compositional analysis of NC. She argues that n-words are universal quantifiers that take scope over negation at LF. The semantics of *KANENAS* 'n-body' is thus as in (58). This yields the correct readings for the NC sentences, cf. (59).

(58) $[[\text{KANENAS}]] = \lambda P \forall y[\textbf{Person}(y) \rightarrow P(y)]$

---

[248] Examples (54)-(57) are taken from Giannakidou 1998:467.
[249] I will discuss the issue of the quantificational nature of n-words in section 7.4.

(59)   *Dhen* irthe *KANENAS* [250]   Greek
       Neg came n-body
       'Nobody came'

(60)   NegP: $\lambda P\forall y[\textbf{Person}(y) \rightarrow P(y)](\lambda x_1 \neg \textbf{came}(x_1)) =$
                     $\forall y[Person(y) \rightarrow \neg came(y)]$

DP $\lambda x_1 \neg \textbf{came}(x_1)$

                 λx_1 $\neg \textbf{came}(x_1)$

                              Neg°: $\neg$ IP: $\textbf{came}(x_1)$
                              Dhen

KANENAS:
$\lambda P\forall y[\textbf{Person}(y) \rightarrow P(y)]$ I°: $\textbf{came}_v$ VP: $X_v(x_1)$

                                                                    t_1: x_1 t_v: X_v
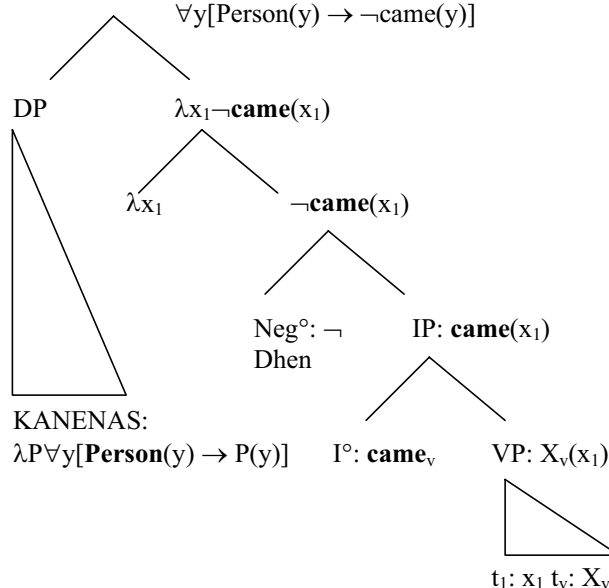
If the assumption that Greek emphatic n-words are non-negative universal quantifiers that have to scope over a negation is correct, then the correct interpretation follows. However, it is unclear why this assumption holds. The assumption that n-words are non-negative universal quantifiers is twofold: first it argues that n-words are non-negative NPI's; second it takes n-words to be universal quantifiers. I will discuss the quantificational nature in section 7.5. In this subsection I will address the question whether Greek n-words are NPI's and discuss several problems that this analysis faces.

The assumption that Greek emphatic n-words are non-negative NPI's is problematic for the following reasons:

- The analysis fails to explain why emphatic n-words cannot be licensed outside the clause.
- The question why universal quantifiers exhibit AI/NPI-like behaviour remains unanswered.
- The nature of licensing of emphatic n-words remains unexplained.

---

[250] Taken from Giannakidou 2000: 501.

- The ungrammaticality of fragmentary answers containing unemphasised n-words remains unexplained.
- The unidirectional relation between the syntactic status of the negative marker and the occurrence of NC remains unexplained.

The analysis fails to explain why emphatic n-words cannot be licensed outside the clause

The first three problems address the three general questions that dominate any theory of AI/NPI licensing: respectively the licenser question, the licensee question, and the licensing question. For the sake of clarity I will repeat these three questions from chapter 3:

> The *licenser question* is essential for the determination of what counts as a negative context, since it addresses the question what conditions a proper NPI-licenser needs to fulfil. The *licensee question* seeks an answer to the question why certain elements are only allowed to occur in particular contexts, and what distinguishes them from polarity-insensitive elements. […] The *licensing question* addresses the question of the relation between licenser and its licensee and its answer consists of the conditions for such a relation to be allowed (generally answered in terms of c-command). [Taken from 3.1.2]

The first problem addresses the question why n-words being NPI's cannot be licensed outside the clause. According to Giannakidou NPI's can only be licensed by an anti-veridical context, i.e. a context with the following property:

(61)   If $Op(p) \rightarrow \neg p$ is logically valid, Op is anti-veridical

Suppose we have the following context C:

(62)   C: It is not the case that p, whereby p is a proposition

In this case p is in an anti-veridical context since the first clause is an anti-veridical operator. Suppose p is 'John reads a book.' Then 'It is not the case that John reads a book' $\rightarrow \neg p$. In this case it is to be expected that Op can license both the unemphasised and the emphasised Greek n-words (Giannakidou's terms). However, as we saw, only the unemphasised n-words can be licensed by this context (63). Giannakidou argues that this is due to the quantificational nature of emphasised n-words: n-words have to be originated in a proper context, but given the fact that they are subject to Quantifier Raising they have to scope over the negation. As is known from the literature QR is clause-bound. However, this does not mean that quantifiers are blind for the semantic properties of the clause that dominates their own clause. The observation that emphasised n-words are non-negative quantifiers does not explain why they are only allowed in negative (anti-veridical) contexts. It remains an open question why the n-word in (63) cannot be assigned a non-negative universal reading in the subordinate clause 'It is not the case that everybody came'

(63)   *_Dhen_ alithévi pu irte _KANENAS_   Greek
        Neg true that came n-body
        'It is not true that everybody came'

One could argue that it does not necessarily have to be the case that polarity items are dominated by a proper operator, but that it would also be sufficient if they dominate such an operator. Take e.g. sentence (64):

(64)   John didn't see anyone
        $\neg\exists x[\textbf{person'}(x)\ \&\ \textbf{see}(\textbf{j}, x)]$
        $\forall x[\textbf{person'}(x) \rightarrow \neg\textbf{see}(\textbf{j}, x)]$

The two logical representations in (64) are truth-conditionally identical. Hence one cannot argue on the basis of these examples that _anyone_ is an existential quantifier: it could also be a universal quantifier that due to its polarity properties needs to dominate a negative operator. However, introducing an extra quantifier in these sentences illsutrates that for English only the first representation can be the correct one.

(65)   The IRS rarely audits anyone
        $<\forall>$ $Q\neg$ $<\exists>$
        It is usually not the case that there is someone whom the IRS audits
        *Everyone is such that it is usually the case that the IRS doesn't audit him

The first reading follows from the construal in which the NPI is treated as an existential quantifier, the second reading derives from the analysis of _anyone_ in terms of a universal quantifier. Given that the second reading does not represent the meaning of the sentence in (65), NPI's are treated as existential quantifiers or indefinites.
This observation is supported by Linebarger's (1987) immediate scope constraint. NPI's should always be immediately dominated by a downward entailing (DE) operator, in other words: no non-DE operator is allowed to intervene. For example in (66) the intervening determiner _the_ blocks the licensing of _any_. Similarly in (67) only readings in which _every_ does not intervene between the negation and _any_ are allowed.[251]

(66)   *I did_n't_ meet <u>the</u> man who gave me any present

(67)   Mary did<u>n't</u> wear any earrings at every party
        $\neg>$any$>\forall$
        $\forall>\neg>$any
        *$\neg>\forall>$any

---

[251] Examples from Guerzoni (to appear).

Richter & Sailer (1998) take these constraints as evidence that NPI licensing is a form of variable binding, and therefore argue that NPI's should be treated as indefinites. If the variable introduced by *any* is not bound by a DE operator, but by a non-DE operator, then licensing is illicit. Giannakidou argues that the immediate scope constraint is not a priori connected to NPI's being indefinites. However, her analysis of NPI's as universal quantifiers does not offer an explanation for the effects in (66)-(67), whereas the indefinite approach does.

Thus the assumption that Greek n-words are non-negative quantificational NPI's is problematic and forms an extra argument in favour of analyses that take NC to be a form of syntactic agreeent.

The question why universal quantifiers exhibit AI/NPI-like behaviour remains unanswered

A second argument against Giannakidou's analysis of NC in terms of NPI licensing is the fact that it fails to address the licensee question. It has often been assumed that it is in fact the indefinite/minimiser status of NPI's that is the source of their context dependency (Kadmon & Landman 1993, Krifka 1995). In these analyses it is shown that NPI's indicate minimal amounts, and that sentences containing NPI's can therefore only be felicitous in DE contexts.
The assumption that Greek n-words are universal quantifiers fails to account for the fact why the following sentence is ungrammatical, or semantically/pragmatically unfelicitous.

(68)   *Irte *KANENAS*   Greek
         Came n-body
         'Everybody came'

Reasoning that this is not well-formed because it is an NPI is circular, as it is the ungrammaticality of examples such as (68) that the NPI account is based on. The fact that n-words only occur in anti-veridical contexts is descriptively adequate, but lacks explanatory motivation. A theory that also explains why NPI's are not allowed to occur outside non-veridical contexts is therefore to be preferred.

The nature of licensing of emphatic n-words remains unexplained

Third, as we saw in chapter 5, Greek is a Strict NC language and accepts cases in which the (emphasised) n-word occurs in preverbal position preceding the negative marker *dhen*.

(69)   *KANENAS dhen* irte   Greek
        N-body neg came
        'Nobody came'

Normally AI/NPI licensing does not allow for these constructions, since the negative marker is required to c-command the NPI both at s-structure and LF. This is also the case in English:

(70)   *Anybody does*n't* come

The fact that the example in (69) is well formed is then incompatible with an analysis in terms of NPI's, although cases in which NPI's dominate the negation do exist, e.g. Dutch NPI verbs.

(71)   Jan hoeft *niet* schoon te maken   Dutch
        Jan needs neg clean to make
        'John doesn't need to clean'

However, in these cases the negation still scopes over the NPI verb and the verb is base-generated in a position below the negation. The fact that the finite verb moves over the negation is probably a result of PF movement (cf. Chomsky 1995).
Although the example in (70) is not in line with a general approach of n-words in terms of NPI's, it is not a valid counterargument against Giannakidou's proposal of NC, as she allows for universal quantifier NPI's that due to their quantificational properties raise to a position that dominates the negative operator. However, the argument that some NPI's are allowed to occur in a position that is forbidden for weaker AI's is problematic. The sole argument Giannakidou provides to show that Greek n-words are NPI's, is that Greek n-words occur in contexts that are a subset of contexts in which AI's are licensed. This is not problematic, since it is known from the literature (Van der Wouden 1994a, Zwarts 1998) that some AI's require stronger licensing conditions than others. However it is problematic that Greek emphatic NPI's are also allowed in contexts that do not allow other NPI's, such as the context in (70).

(72)   KANENAS/*Kanenas dhen ipe TIPOTA   Greek
        N-body/anybody neg says n-thing
        'Nobody says anything'

The argument that Greek n-words are quantifiers and are therefore forced to raise to a position to the left of the negative marker violates Giannakidou's account of AI's as being context sensitive. Apparently there is a particular subclass of AI's that is allowed to occupy positions that are forbidden for all other AI's. The only way to save Giannakidou's approach of n-words in terms of AI's is to broaden the definition of AI's to such an extent that n-words fit in. Such a step can only be maintained if there is independent motivation to do so. This evidence is lacking. The only motivation to

allow for certain AI's to participate in constructions as (72) is to account for these constructions. Hence the argument that Greek n-words are NPI's is circular.

The ungrammaticality of fragmentary answers containing unemphasised n-words remains unexplained

The fourth argument concerns a similar problem: fragmentary answers raise problems for the approach that n-words are non-negative. However, Giannakidou provides an elegant solution: n-words in fragmentary answers are the result of ellipsis. Before ellipsis, the sentence contains an overt negation that is responsible for the licensing of the NPI. Hence fragmentary answers as in (73) are created in a three-step process: first the non-elliptical sentence is produced, then the n-word moves to a Topic/focus position, and finally the rest of the sentence is deleted under ellipsis (74):

(73)   Ti idhes? *TIPOTA*   Greek
        What saw.2sg? N-thing

(74)   a.   [$_{NegP}$ *Dhen* [$_{IP}$ idhes *TIPOTA*]]   Greek
        b.   [$_{NegP}$ *TIPOTA$_i$ dhen* [$_{IP}$ idhes t$_i$]]
        c.   [$_{NegP}$ *TIPOTA$_i$ ~~dhen~~* [$_{IP}$ ~~idhes t$_i$~~]]

The question is now: what excludes the presence of a fragmentary answer like (75)?

(75)   Ti idhes? *Tipota   Greek
        [~~Dhen idhes~~ tipota]

If n-words are AI's and if they are allowed in these contexts, more AI's should in principle be allowed to occur in fragmentary answers (without an overt licenser). This is not the case. The argument that this might be due to the fact that Greek emphatic n-words are universal and not existential quantifiers does not help, since there is no ban on existential quantifiers in fragmentary answers:

(76)   What would you like for your birthday? All donkeys! / A donkey!

Thus Giannakidou's analysis requires an additional explanation. She argues that only unaccented material may be subject of deletion under ellipsis. In the case of non-emphatic n-words in Greek the negative marker needs to be stressed and can therefore not be deleted. However, this does not hold for the ban on NPI's that can be stressed occurring in fragmentary answers, such as English *any*-terms or Spanish *un alma* (77).

(77)   *UN ALMA *no* vino   Spanish
        A soul neg came
        'A single soul didn't come'

These elements are not allowed in fragmentary answers either. Giannakidou links this to the ban on NPI's preceding negation at surface structure and claims that if an NPI is subject of a c-command constraint, then ellipsis is not allowed. However, this is not true, since Dutch NPI verbs are free to occur to the left of the negation at surface structure (as shown in (71)), but are forbidden in fragmentary answers.

(78)   Waar droom je over? *(*Niet*) hoeven schoonmaken   Dutch
        Where do you dream PRT? Neg need clean
        'What are you dreaming of? Not needing to clean'

Hence I take the ban on NPI's in fragmentary contexts as an argument against a similar treatment of NPI's and n-words.

The unidirectional relation between the syntactic status of the negative marker and the occurrence of NC remains unexplained

Finally, the analysis of n-words as AI's is not related to the syntactic status of the negative marker. This means that adopting this position in the debate on the semantic status of n-words requires an additional theory for the unidirectional relation between the syntactic status of a negative marker and the occurrence of NC. It stands to reason that a theory from which this generalisation follows is superior.

Giannakidou addresses two questions with respect to the semantic status of n-words: (i) what are the quantificational properties of n-words and (ii) what is the negative content of n-words. Her answer to the latter question is that n-words are semantically non-negative. However, this analysis does not legitimise the conclusion that n-words are AI's. AI's share several properties that n-words lack and vice versa and should be treated as different entities.

7.2.3   Concluding remarks

In this section I discussed the view that n-words are semantically non-negative. Although the conclusion that n-words are AI's is proven to be wrong, the approach that n-words are semantically non-negative is still tenable. In the next chapter I argue that this is in fact the correct assumption to be made. As the licensing conditions of n-words are crucially different from context dependency licensing, as is the case with AI's/NPI's, I will propose a different mechanism that is responsible for the licensing of n-words, namely feature checking. This implies that NC should be considered a form of syntactic agreement. Note that syntactic agreement, like the treatment of n-words as AI's, follows from Ladusaw's programmatic approach of treating n-words as semantically non-negative.

I argue that the perspective that NC is the result of syntactic agreement with respect to negation does not only yield solutions to problems that have been discussed in the previous sections, but also that this correctly predicts the typological generalisations, which have been formulated in chapter 4 and 5.

7.3 The ambiguity approach of n-words

In this section I will evaluate an approach that tries to overcome the problems with the analyses discussed in 7.1 and 7.2. Most of the problems, which arise from analyses that treat n-words as semantically negative or semantically non-negative is that n-words seem to exhibit both kinds of behaviour. The occurrence of n-words in non-negative, downward entailing contexts with an existential reading is problematic for an analysis that treats n-words as negative quantifiers. On the hand, the occurrence of n-words in fragmentary answers is problematic for theories that treat n-words as semantically non-negative. Both Van der Wouden (1994a) and Herburger (2001) therefore suggest that n-words are ambiguous between negative quantifiers and NPI's. In the following two subsections I will briefly discuss these theories and conclude that these theories face both empirical and conceptual problems.

7.3.1 Context-sensitive ambiguity

Van der Wouden & Zwarts (1993) and Van der Wouden (1994a) propose a context-sensitive semantics that takes lexical elements to be systematically ambiguous between two (or more) readings depending on the context they appear in. This semantic framework has been proposed for independent reasons by Keenan (1974), Partee (1984) and Pustejovsky (1989). Partee argues that adjectival polysemy (like the different interpretations of *red* in (79)) should be accounted for by adopting a disjunctive meaning form as in (80).

(79) a. Red grapefruit
      b. Red army
      c. Red carpet

(80) $f(\text{x}) = \_$ if $P_1(\text{x})$, $\_$if $P_2(\text{x})$, …, $\_$ if otherwise

Van der Wouden and Zwarts take the meaning of n-words to be the outcome of such a meaning function, following an original hypothesis by Longobardi (1991) who argues that n-words are systematically ambiguous between negative universal quantifiers and positive existential quantifiers. Hence Van der Wouden and Zwart take n-words to be positive existentials in the proper negative context (depending on the specific properties of a language Downward Entailing, or anti-additive) and as universal negative contexts in all other contexts.

(81)   The meaning of n-words as the result of context-sensitive semantics

Context:	DE/AA[252]	Otherwise
N-words	$\exists$	$\forall\neg$ / $\neg\exists$

As has been described in 3.3.3, Van der Wouden distinguishes between Negative Spread and Negative Doubling. Negative Spread does not involve a specific negative marker and therefore the context sensitivity of n-words is responsible for the NC Reading in Negative Spread constructions such as (82).

(82)   *Nessuno* ha telefonato a *nessuno*   Italian
     N-body   called to   n-body
     'Nobody called   anybody'
     $\forall\neg$ $\exists$

In this case the NC reading follows naturally: the first n-word is not in a negative context and therefore it gets interpreted as a negative quantifier and thus it introduces a negative context. The second n-word therefore is in a negative context and gets interpreted as a positive existential.

Cases of Negative Doubling are more complex: as an example Van der Wouden describes the situation in Afrikaans, which he considers to be a strict Negative Doubling language in the sense that an NC relation does not have more than two members.[253]
In the case of Negative Doubling in Afrikaans, the negative marker *nie* (henceforward *nie₁*) (83)a or an n-word (83)b is followed by a second (optional) negative marker *nie* (*nie₂*).

(83)   a.   Ek het hom *nie* gesien *nie*[254]   Afrikaans
          I have him neg seen neg
          'I haven't seen him'
    b.   *Niemand* het dit gesien *nie*
          N-body has this seen neg
          'Nobody saw this'

Van der Wouden argues that n-words in Afrikaans are semantically negative, since the occurrence of multiple n-words in an NC chain yields Double Negation readings. This led Van der Wouden and Zwarts to assume that the negative marker is subject to context-sensitive ambiguity: in non-negative contexts the negative marker is a negative operator function that reverses truth-conditions; in negative contexts it is an NPI that represents an identity function that conserves truth conditions.

---

[252] DE: Downward Entailing; AA: Anti-Additive.
[253] Recall that it became clear from the discussion in 3.3.3 on Afrikaans that this view is no longer tenable.
[254] From Van der Wouden (1994): 100.

(84) The meaning of Afrikaans *nie* as the result of context-sensitive semantics

Context:	Negative	Non-negative
N-words	I $(1 \rightarrow 1; 0 \rightarrow 0)$	$\neg$ $(1 \rightarrow 0; 0 \rightarrow 1)$

Van der Wouden (1994a) argues that this treatment is similar to the treatment of many NPI's, such as *any* or idiomatic NPI's. Contrary to other kinds of NPI's these NPI's are allowed to occur in non-negative contexts, but they lose their particular reading in these contexts. In (85) *any* behaves like an indefinite under negation, but in non-negative contexts it is a free-choice element, that behaves like a universal quantifier. In (86) the negative sentence gives rise to an idiomatic reading, whereas the positive sentence is interpreted non-idiomatically.

(85) a. John did*n't* see anybody
$\neg\exists x[\textbf{person'}(x) \ \& \ \textbf{see'}(\textbf{j}, x)]$
   b. Anybody saw John
$\forall x[\textbf{person'}(x) \rightarrow \textbf{see'}(x, \textbf{j})]$

(86) a. Eddy did*n't* lift a finger when the old lady got beaten
   b. Eddy lifted a finger and the whole orchestra started to play[255]

Van der Wouden & Zwarts sketch a context-sensitive semantics of both negative markers and n-words, and provide elaborate analyses for languages such as Italian and Catalan. Van der Wouden argues that Italian only exhibits Negative Spread, which means that the negative marker is (always) the realisation of the negative operator. This implies that n-words in Italian are context sensitive, whereas the negative marker is always negative. The typical pattern for Non-Strict NC languages that forbid instances of NC consisting of a preverbal negative marker preceded by an n-word ((87)c) follows from this approach.

(87) a. *Nessuno* ha telefonato a *nessuno* (=(82))   Italian
       N-body called to   n-body
       'Nobody called   anybody'
       $\forall\neg$ $\exists$
   b. *Non*   ha telefonato a *nessuno*
       Neg   called.3SG to   n-body
       'He   didn't call   anybody'
       $\neg$ $\exists$
   c. *Nessuno non*   ha telefonato a *nessuno*
       N-body neg   called to   n-body
       'Nobody did not call   anybody'
       $\forall\neg$ $\neg$ $\exists$

---

[255] From Van der Wouden (1994): 100.

Strict NC languages allow NC readings in sentences such as (88). Van der Wouden accounts for this by arguing that Catalan exhibits a combination of Negative Spread and Negative Doubling.

(88)   Res   (no) functiona   Catalan
        N-thing   neg   works
        'Nothing   works'
        $\forall\neg$ I

Still, the approach by Van der Wouden & Zwarts (1993) faces several problems that I will list briefly below and that I clarify thereafter.

- The analysis cannot explain the clause-boundedness of NC.
- The analysis does not explain why n-words in many languages cannot occur by themselves in non-elliptic sentences.
- The analysis cannot explain why n-words can sometimes have negative readings within a negative context.
- Lexical underspecification is in general not expected to lead to possible contradictory meanings.
- Unless contextual ambiguity is proven to be the correct option, a theory that can explain NC without relying on ambiguity is superior to a theory that is based on ambiguity.
- The unidirectional relation between the syntactic status of the negative marker and the occurrence of NC remains unexplained.

The analysis cannot explain the clause-boundedness of NC

First, the clause-boundedness of NC relations does not follow from Van der Wouden's (1994a) analysis. In fact Van der Wouden tries to prove the opposite, namely that NC relations can be realised between two clauses, by arguing that Paratactic Negation is possible in all studied NC languages. However, this does not explain why standard NC has to be clause bounded. Negative Contexts are not restricted to single clauses, and if an n-word is in a clause that is dominated by a clause containing a negative context, then an additional analysis is needed to explain why, contrary to standard NPI licensing, NC relations between the higher negation and the lower n-words are forbidden.

The analysis does not explain why n-words in many languages cannot occur by themselves in non-elliptic sentences

Another argument against Van der Wouden's analysis is that it does not explain why NC is obligatory. If a sentence contains a postverbal n-word in a non-negative context (i.e. not preceded by any negative element), the sentence is predicted to be

grammatical as the n-word will be interpreted as a negative universal quantifier, which may scope over the entire predicate.

(89)   *Ha telefonato a   nessuno   Italian
        Has.3sg called to   n-body
        'He called   nobody'
                            $\forall\neg$

Van der Wouden only says about the absence of this construction that there is some domain of Negative Doubling that excludes the sentence's topic position. Hence the postverbal negative quantifier cannot scope over the entire clause and instead it triggers Negative Doubling by introducing a negative marker *non* (in topic position) that in its turn forms a negative context in which the n-word switches from negative quantifier to positive existential.
However this way of reasoning is stipulative, since the only motivation to assume such an adaptation of the theory is to account for the unwellformedness of constructions such as (89). Moreover, the notion of a domain of Doubling and the motivation to leave out the topic position from the scope of a negative quantifier (in postverbal position) remain unclear and unsupported by independent evidence.

The analysis cannot explain why n-words can sometimes have negative readings within a negative context

Moreover, the treatments of n-words in negative context in a context-sensitive framework leads to the prediction that n-words in negative contexts may not be interpreted as negative quantifiers. However, Herburger (2001) shows examples from Spanish in which n-words following a negative marker are ambiguous between an NC reading and a DN reading.

(90)   El bebé *no* está mirando a *nadie*[256]   Spanish
        The baby neg is looking at n-body
        NC: 'The baby is not looking at anybody'
        DN: 'The baby is not looking at nobody'

The second reading in (90) is not a standard instance of DN, as the negative quantifier cannot scope over the existential quantifier that binds the event variable. The DN reading of (90) is thus equivalent to (91).

(91) $\neg\exists e[$**look'**(e) & **Agent**$(\mathbf{b}, e)$ & $\neg\exists x[$**Person**(x) & **Patient**$(x, e)]]$

One may argue that the second reading is marked, whereas the first (NC) reading is the preferred one, but this is due to the fact that situations in which the second reading is salient are rather odd. However these situations are conceivable (as in the case of a

---

[256] Taken form Herburger (2001): 306.

baby that is staring) and in such a situation (90) under the reading of (91) is not unusual.

Finally, as Herburger observes, the (pragmatically marked) reading in which each n-word is assigned a negative reading is not restricted to postverbal positions. Constructions with two preverbal n-words are also possible in Spanish.

(92)   *Nadie nunca* volvió a Cuba[257]   Spanish
         N-body n-ever returned to Cuba
         NC: 'Nobody ever returned to Cuba'
         DN: 'Nobody never returned to Cuba'

Although *nadie* 'n-body' introduces a negative context, *nunca* 'n-ever' is still able to get a negative reading too. In a context-sensitive framework this is not expected. Note furthermore, that *nunca* is not in topic position and (92) does not exhibit Negative Doubling (i.e. the negative marker is absent), as would be predicted by Zwarts & Van der Wouden's approach.

The previous arguments showed that a context-sensitive framework gives rise to predictions about possible readings of n-words that seem to be too strict. Apparently in some negative contexts n-words may keep their negativity. This phenomenon is not restricted to the negativity of n-words, but also in the case of idiomatic NPI's. The idiomatic expression *to lift a finger* (86) is only available in negative contexts. However, it is not the case that the literal reading is not only available in non-negative contexts, but also in negative contexts.

(93)   Eddy used to be an Arab thief. Now he can*not* lift a finger anymore.

Hence the literal meaning remains always available, whereas the metaphorical reading is only available in particular contexts.

Lexical underspecification is in general not expected to lead to possible contradictory meanings

Another argument against Van der Wouden & Zwart's analysis in terms of context-sensitive semantics concerns the validity of the accounts in terms of underspecification of meanings of lexical elements. Intuitively there is a difference between the polysemy of *red* in different contexts and the difference between a negative operator and the identity operator. Van der Wouden argues that it is not the difference between the possible meanings of a certain lexical element, but that the correspondences are the crucial factor. E.g. the different kinds of *red* all denote properties (of nouns) and the difference between free choice *any* ($\forall$) and the indefinite *any* ($\exists$) is in fact a shift between two possible kinds of quantifiers. The

---

[257] Taken from Herburger (2001): 306.

same holds for the difference between negative quantifiers ($\forall\neg$ / $\neg\exists$) and positive existentials ($\exists$): the meaning shifts along the line of the complement axis in the classical square of opposition (cf. Aristotle, Horn 1989, Van der Wouden 1994a).

(94)   Square of opposition

All ($\forall$)	Some ($\exists$)
No ($\forall\neg$ or $\neg\exists$)	Not all ($\neg\forall$ or $\exists\neg$)

The same holds for the meaning shift of the negative marker: the only two non-trivial[258] operators that map truth-values to truth-values are the identity function and the negative operator. Hence a meaning shift between those two is to be expected, according to Van der Wouden.
However this position has been under attack. The ambiguity of *any* was an argument in favour of this form of context-sensitive semantics. However, many scholars have argued that free-choice *any* is different from universal quantification and, moreover, a single representation can be given for *any* such that it gives rise to the correct readings in both negative and non-negative constructions (Aloni 2003, Giannakidou 2002, Chierchia 2004). For conceptual reasons a single representation for n-words is preferred over an ambiguity analysis.

Unless contextual ambiguity is proven to be the correct option, a theory that can explain NC without relying on ambiguity is superior to a theory that is based on ambiguity.

Ambiguity analyses are in some sense a theoretical last-resort, i.e. from a conceptual point of view, analyses, which cover the same facts without assuming ambiguity are preferred over theories that posit ambiguity. This implies that theories that use ambiguity require independent evidence or motivation for this ambiguity. In the case of this analysis, the motivation follows from the analysis of the ambiguity of *any* and from accounts of the polysemy of adjectives and verbs. However this motivation turns out not to be firm enough to build a theory upon, and moreover the theory itself faces some important problems.

The unidirectional relation between the syntactic status of the negative marker and the occurrence of NC remains unexplained

Finally, Van der Wouden & Zwart's analysis does not connect NC to the syntactic status of the negative marker. Hence, this theory requires an additional syntactic theory to account for the distribution of NC languages. In chapter 8 I will show that a

---

[258] The term 'non-trivial' is due to Van der Wouden. One could argue however, that the Identity function is the most trivial function as the application of this function does not contribute to the semantics of a sentence. Moreover, it is unclear why functions that map all truth values to either 0 or 1, are trivial, as they do provide semantic contribution.

theory of NC in terms of syntactic agreement predicts this distribution of NC and DN languages.

7.3.2   Lexical ambiguity

A final approach to be described in this chapter is Herburger's account for NC in terms of lexical ambiguity. Herburger argues that theories that do not describe NC in terms of ambiguity may seem conceptually superior, but that there are two arguments to analyse NC as a result of lexical ambiguity: (i) other theories face serious problems that are either unsolvable or require additional mechanisms that make them unattractive; and (ii) that this ambiguity is not stipulated but motivated: it is a reflection of an intermediate phase in the Jespersen Cycle.

Herburger's analysis is primarily based on two observations: (i) the fact that n-words in NC languages sometimes express negation by themselves, and sometimes behave like NPI's; and (ii) that these possible meanings are not in complementary distribution (as exemplified in 7.3.1). The fact that n-words are sometimes ambiguous between negative quantifiers and non-negative NPI's in the same constructions led Herburger to assume that n-words are lexically ambiguous and that in most cases some filter blocks one of the two readings. Such a framework requires two different filters on n-words: one filter that blocks the NPI reading; and one filter that blocks the negative quantifier reading.

The first filter that blocks the non-negative NPI readings is straightforward: an n-word can only have an NPI reading if it is in a proper negative (i.e. anti-additive or downward entailing) context. The absence of such a context blocks the NPI reading. The second filter is less straightforward. Herburger postulates that negative quantifiers in NC languages are not allowed to move across the quantifier that binds the event variable. As a result of this filter n-words always keep their negative quantifier reading, but constructions in which the negative quantifier in postverbal position receives a negative quantifier interpretation are pragmatically marked. Herburger provides examples such as (95) (similar to the example in (90)) in which a postverbal n-word still receives a negative reading. In these kinds of examples the negative quantifier does not scope over the existential quantifier that binds the event variable, yielding an LF such as (96).

(95)   El bebé *no* está mirando a *nadie*   Spanish
         The baby neg is looking at n-body
         DN: 'The baby is not looking at nobody'

(96) $\exists$e[**look'**(e) & **Agent**(**b**, e) & $\neg\exists$x[**Person**(x) & **Patient**(x, e)]]

Although these sentences are completely grammatical, their usage is restricted for pragmatic reasons. The sentence in (95) (with reading (96)) can only be uttered

felicitously in rather odd situations. Therefore the reading with the non-negative n-word is the preferred one.

Now the preverbal-postverbal distinction immediately falls out: n-words in preverbal position are not licensed by negation, and therefore they are interpreted as negative quantifiers. N-words in postverbal position can either be licensed by a preverbal n-word or a negative marker and in these cases they receive a non-negative NPI reading. In the (rare) cases that postverbal n-words are not licensed by a negative element, they are interpreted as negative quantifiers, which are not allowed to scope over the quantifier binding the event.

Herburger acknowledges that (lexical) ambiguity should not be proposed without proper motivation. She relates the property of a language to have lexical ambiguous n-words at its disposal as a reflection of an intermediate phase in the Jespersen Cycle. She follows Ladusaw (1993) in his analysis that during the cyclic development of negation, minimizing indefinites first become NPI's and later negative quantifiers. Take for example the diachronic change of meaning of the French word *personne*. In Old French this word meant 'person' and could be used as a minimizing element, mostly in negative sentences.

(97)   a.   I did*n't* talk
       b.   I did*n't* talk to a (single) person

Later, in Middle French, *personne* only became available in negative sentences and therefore got reinterpreted as an NPI. Standard French still exhibits this use of *personne*, as is demonstrated in (98).

(98)   Je *n'*ai vu *personne*   Standard French
       I neg.have seen n-body
       'I didn't see anybody'

Finally in Colloquial French the preverbal negative marker *ne* is almost completely gone, and *personne* is allowed to be the only negative element in a negative sentence, as is shown in (99). Hence *personne* behaves like a negative quantifier.

(99)   J'ai vu *personne*   Coll. French
       I.have seen nobody
       'I saw nobody'

Herburger argues that Non-Strict NC languages like Spanish can be seen as intermediate stages between Middle French and Colloquial French varieties. In these intermediate phases n-words are sometimes, mostly in preverbal position, interpreted as negative quantifiers and in other cases postverbally as NPI's. Given the fact that n-words show a diachronic meaning shift, ambiguity of n-words is then a side effect of this meaning shift in which both meanings are available.

Still some problems remain open under this analysis:

- The ban on postverbal negation scoping over the event quantifier remains unmotivated.
- Preverbal n-words in negative contexts do not get an NPI reading.
- The diachronic meaning shift between NPI's and lexical ambiguous n-words is unclear.
- The analysis faces problems when applied to Strict NC languages.
- The question as to why no disambiguating mechanism rules out lexically ambiguous n-words is still open.
- The unidirectional relation between the syntactic status of the negative marker and the occurrence of NC remains unexplained.

The ban on postverbal negation scoping over the event quantifier remains unmotivated

The first argument is straightforward and acknowledged by Herburger herself. It is unclear why, unlike in Dutch or English, negative quantifiers in Spanish are not allowed to scope over the event quantifier, yielding propositional negation. Moreover, in the languages she discusses (primarily Spanish) no other examples of blocking by event quantifiers of quantificational terms are provided.

Preverbal n-words in negative contexts do not get an NPI reading

The second argument is an argument that holds for all analyses of n-words in terms of NPI's, namely the ban on NC interpretations of preverbal n-words if the dominating clause contains a negative context. In Herburger's analysis the NC reading is predicted to be well-formed in sentence (100), since the preverbal n-word is in a negative context. Note that this argument does not hold against Herburger's analysis only, but is a general argument against all analyses of n-words in terms of NPI's.

(100) *No* se da el caso de que *nadie* viaje a Francia   Spanish
       Neg SE give the case of that n-body travels to France
       *'It is not the case that anybody goes to France'
       'It is not the case that nobody goes to France'

Herburger counters this argument by arguing that NC can be licensed outside the clause, as in the cases of Paratactic Negation. She even shows an example in which an entire clause intervenes between the negatively connotated verb *doubt* and the clause containing an n-word.

(101)   Dudo [que él haya dicho
              [que María le debiera *ningún* dinero]]   Spanish
        Doubt.1SG that he has.SUBJ said that Maria him owed.SUBJ n- money
        'I doubt that he said that Mary owned him any money'

However, this sentence contain two subjunctives, and subjunctives seem to be able to license lower n-words (as was shown in 3.3.3). Therefore, this argument no longer holds if the subjunctive in the intervening clause is mandatory. This is indeed the case.

(102)   *Dudo que él ha dicho que María le debíera *ningún* dinero   Spanish
        Doubt.1SG that he has.IND said that Maria him owed.SUBJ n- money
        'I doubt that he said that Maria owned him any money'

The diachronic meaning shift between NPI's and lexical ambiguous n-words is unclear

The third argument concerns the motivation for lexical ambiguous n-words along the lines of the Jespersen Cycle. Herburger assumes a meaning shift that takes n-words first to be NPI's, later on these elements are ambiguous between NPI's and negative quantifiers and finally n-words become sole negative quantifiers.

(103)

NPI's	→	NPI's Neg Quantifiers	→	Neg Quantifiers
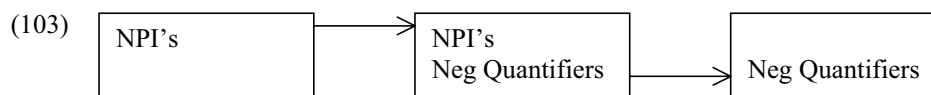
The meaning shift in (103) suggests the presence of a phase in the Jespersen Cycle in which n-words are NPI's and cannot receive a negative quantifier interpretation. This observation is incorrect. Older phases of Italian and Spanish were Strict NC languages that did not allow preverbal n-words without a preverbal negative marker:

(104)   Que a myo Cid Ruy Diaz, que *nadi no* diessen posada   11th Cent. Spanish
        That to my Lord Ruy Diaz that n-body neg give lodging
        'That nobody gave lodging to my lord Ruy Diaz'

As is well known, Strict NC languages give rise to fragmentary answers, single n-words in coordination, etc. Hence, one cannot analyse these kinds of n-words in Spanish in the first phase of the Jespersen Cycle as sole NPI's, since this phase of Spanish does not only allow for NPI readings of n-words, but also for Negative Quantifier-like interpretations. Herburger's motivation for lexical ambiguity by considering the meaning shift along the line of the Jespersen Cycle is only valid if n-words never occur without an extra negative marker. However in those cases n-words never introduce a negative context and as a result fall outside the definition for n-words. Hence they are no n-words and for that reason these languages should not be

considered NC languages. Therefore the independent motivation for assuming lexical ambiguity is ungrounded.

The analysis faces problems when applied to Strict NC languages

The fourth argument concerns the treatment of Strict NC languages. Herburger discusses the case of Catalan, which allows for an overt negative marker following preverbal n-words. This raises an open question how the (single) negativity of sentences like (105) can be accounted for.

(105) *Res no* functiona   Catalan
       N-thing neg works
       'Nothing works'

(106) *Gaires coses *no* functionen   Catalan
       Many.NPI things neg work
       'Many things don't work'

Two analyses are possible: (i) the negative marker *no* is allowed to license the NPI-version of *res*. But this analysis does not explain why (106) is ruled out; (ii) the negative marker is lexically ambiguous between a semantically empty NPI and a negative operator. However, this analysis is in contradiction with Herburger's motivation for ambiguity: if this were true, preverbal n-words in Old Spanish could also acquire a negative quantifier reading and this runs against her claim that all n-words in Old Spanish are NPI's. Moreover, the ambiguity of the negative marker is not independently motivated.

The question as to why no disambiguating mechanism rules out lexically ambiguous n-words is still open

Even if the lexical ambiguity could be motivated by correspondences with other phenomena such as the Jespersen Cycle, lexical ambiguity of n-words is not expected to the extent that their possible readings are opposite. Generally, one would expect two diverging meanings of a single lexical item to result in two phonologically different lexical items, each corresponding to one particular meaning. A good illustration of this mechanism is the development of the word for 'cock' in Southern French. This used to be *gallus* in French, but due to phonological change, it was pronounced as *gat*, which was identical to the word for 'cat'. As soon as the phonological string *gat* could refer to a cock and cat, the word *faisan* immediately replaced the word for cock, and *gat* could only mean 'cat'. This illustrates that languages try to reduce the amount of lexical ambiguity (Elffers 1995) and that lexical ambiguity between two opposite meanings seems unlikely.

The unidirectional relation between the syntactic status of the negative marker and the occurrence of NC remains unexplained

Finally, Herburger's analysis does not explain why the syntactic status of n-words is uni-directionally related to NC. Herburger relates the occurrence of NC to the Jespersen Cycle. However, this would lead to a bi-directional generalisation, as in her analysis all Phase V languages are expected to be non-NC languages. This prediction is incorrect however, since several Phase V languages, such as Bavarian or Quebecois, exhibit NC.

7.3.3   Concluding remarks

In this section I have discussed and evaluated two theories that provide an account for the semantics of n-words in terms of ambiguity. In both cases I argued that these theories fail to explain several empirical facts. The general empirical argument is that even in the perspective of lexical or contextual ambiguity, the behaviour of seemingly non-negative n-words is crucially different from that of standard NPI's. Hence these theories lack an explanation of the differences in distribution between NPI's such as *any*-terms and non-negative n-words.

Moreover, both theories suffer not only from empirical problems, but also from conceptual problems. The ambiguity hypothesis is not well motivated on independent grounds. Both Van der Wouden and Zwart's comparison to the ambiguity between NPI *any* and free-choice *any*, and Herburger's motivation along the lines of the Jespersen Cycle were proven to be not solid.

7.4   On the quantificational status of n-words

If follows from the discussion in sections 7.1-7.3 that n-words should be considered as non-negative elements that are syntactically marked for negation, i.e. they carry an uninterpretable [uNEG] feature that needs to be checked against a semantically negative operator carrying [iNEG]. Hence, as I will explain in detail in chapter 8, NC is the result of syntactic agreement between negative elements and a (c)overt negative operator, and no longer poses a problem for compositionality.

A final question that has not been addressed yet, the quantificational status of these non-negative elements. Are n-words indefinites or quantifiers, and if they are quantifiers are they universal or existential quantifiers?

In this section, I briefly address this question and argue that there is strong evidence that n-words are in fact non-quantificational, and that arguments that n-words are (universal) quantifiers are not as straightforward as they seem to be.

7.4.1   N-words as indefinites

The main difference between indefinites and quantifiers is that the first lack quantificational force, whereas quantifiers do. Indefinites introduce a free variable that needs to be bound by existential closure that is applied either on text or sentential level, or by an adverbial operator. This means that non-negative indefinites have two different licensing requirements: they need to be bound by an element carrying [iNEG] (in order to have their [uNEG] feature deleted) and by existential closure to have their free variable bound.
Giannakidou (2002) argues that the latter requirement is problematic for n-words. She presents data from Greek in which both an adverb, a negation and an N-word occur.

(107)   Sixna, otan o Janis ine thimomenos   Greek
   dhen milai me *KANENAN* [259]
  Usually, when John is upset neg talks to n-body
  USUALLY$_s$[John is upset in s][$\neg\exists$x(**Person'**(x, s) & **Talk'**(John, x, s))]

Giannakidou argues that if n-words were indefinites, they should be able to be bound by the Q-adverb *sixna* ('usually'), contrary to fact. However, recall that n-words are subject to two binding requirements. They should be bound by a negative operator for syntactic reasons and by an adverbial operator in order to bind its variable. This leads to two possibilities. Either they are first dominated by the Q-adverb where the negation outscopes this adverb and the Q-adverb binds their variable under existential closure before the negative operator checks the n-words [uNEG] feature, or they are bound by negation first. Since negation is an adverbial operator too, it can introduce existential closure and the n-word is bound by negation, yielding the reading in (107).
The question why the sentence obtains the latter and not the first interpretation is related to scope marking conditions. Note that *dhen*, being a negative marker, denotes the scope of the negation. If negation had to outscope the adverb, this would be manifested at surface structure. Hence contrary to what Giannakidou suggests this example is in line with n-words being indefinite.

The fact that licensing conditions of n-words are related to the scope marking of the negative marker also addresses another problem that Herburger posed against the non-negativity approach, namely contexts in which an n-word acquires a negative reading in postverbal position without being licensed by a negative marker, and yielding an event-bound negative reading, as shown in (108) (repeated from (48)).

(108)   El bébé este mirando a *nadie*[260]   Spanish
  The baby is looking at n-body
  $\exists$e[**Look'**(e) & **Agent**(baby, e) & $\neg\exists$x.[**Thing'**(x) & **Theme**(x, e)]]

---

[259] Example taken from Giannakidou 2002: 9.
[260] Example taken from Herburger (2001).

Herburger argued that these constructions show that n-words in postverbal position can behave like negative quantifiers, but this analysis immediately raises the question why the negative quantifier cannot undergo QR. This problem is solved if the n-word is taken to be an indefinite. Indefinites cannot undergo QR, and hence if a higher negative operator does not license the negation, the only available reading is the event-bound reading. Applying a (syntactic) self-licensing mechanism, as Ladusaw (1992) suggested, n-words are licensed as low as possible by an abstract negative operator. Only if for scopal reasons (e.g. to express sentential negation) the negation must be licensed by a higher negation an overt negative marker is introduced in a position preceding $v°$. Hence in (108) the indefinite cannot exhibit QR to a higher position itself, since it is not quantificational, but a negative operator, either envisaged in a higher position or immediately dominating the n-word, can license it.

Another argument in favour of an indefinite approach is locality. NC is known to be clause-bound except for PN. NC parallels QR in this respect. Giannakidou takes this as an argument in favour of a quantificational approach. However, under the proposed feature checking mechanism clause-boundness is already the result of the syntactic constraints concerning feature checking (which is subject to locality). Therefore, the clause-boundness does not support a quantificational analysis.

Moreover, in many instances of PN an NC relation crosses the clause boundary. All these examples share the property that the lower clauses contain a subjunctive verb. Subjunctives are known to allow feature checking across the clause (cf. Giorgi 2004) and hence the existence of such examples (as the minimal pair in (109) shows) is a major argument in favour of the indefinite approach.

(109)   a.   *No vindrà perquè ha fet res amb ningú   Catalan
              Neg come.fut because he has.IND done n-thing with n-body
              'He won't come because he has done anything with anybody'
        b.   No vindrà perquè hagi fet res amb ningú
              Neg come.fut because he has.SUBJ done n-thing with n-body
              'He won't come because he has done anything with anybody'

Although similar to NC licensing quantifiers may exhibit QR in infinitival or restructuring clauses (cf. Farkas & Giannakidou 1996), n-words are not interpreted quantificationally in such constructions.[261]

(110)   *Dhen* pistevo oti ides *KANENAN*   Greek
        Neg believe.1sg that saw.2sg n-thing
        'I don't believe you saw anything'
        *'Every person is such that I don't believe that you saw him'
        *'I don't believe that you saw every person'

---

[261] Giannakidou (2002) acknowledges that it is not necessarily the case that QR should be applied here. She only wants to illustrate the strong correspondence between locality restrictions on NC and QR. However, the non-universal interpretation of (110) still requires an explanation.

A final argument against a treatment of n-words as universal quantifiers is the fact that universal quantifiers do not move across negation. Giannakidou (2000) argues that this argument does not hold for NPI ∀-quantifiers. She postulates that normal combinations of a universal quantifier scoping over negation are blocked by the presence of other constructions that yield the same interpretation (involving n-words). However, it became clear in chapter 6.4 that even in languages in which universal quantifier precedes negation, an inverse reading is often yielded. The ban on universal quantifiers scoping over negation seems to be much stronger. Therefore the question why universal quantifier n-words are allowed to scope over negation remains open within this approach.

7.4.2   N-words as quantifiers: *almost* modification

The claim that n-words are universal quantifiers (in certain languages) has often been supported by the fact that n-words allow *almost*-modification. It is well known that indefinites/existential cannot be modified by *almost* as opposed to universal quantifiers (cf. Carlson 1980).

(111) a.   *John saw almost somebody
       b.   John saw almost everybody

Zanuttini (1991) and Giannakidou (2000) take this as an argument that n-words are universal as these can be modified with almost too.

(112) *Non* ha telefonato a quasi *nessuno*
       Neg has.3sg called to almost n-body
       'I called almost nobody'

This argument has been under attack, as *almost* modification is not restricted to universals, but rather to endpoints on a scale (Horn 2000, De Sag & Swart 2002). In the discussion about the quantificational status of n-words this counter argument does not hold, as existentials/indefinites denote minimal amounts, whereas universals denote endpoints, as Giannakidou (2000) argues correctly.

However, note that *almost* modification precedes the negation. The semantics of (112) are either 'ALMOST(¬∃)' or 'ALMOST(∀¬)'. In both cases *almost* modifies an endpoint of the scale. The only open question is how *almost*, being a DP modifier can outscope the negation. It would make sense to exclude this possibility, thus providing evidence for the universal quantifier analysis. On the other hand, if the universal quantifier analysis is correct, two multiple n-words can each be modified by *almost*. If n-words are existentials/indefinites *almost* cannot occur more than once in the clause since it cannot modify existentials/indefinites, but only the first almost can scope over the negation, yielding the order ALMOST > ¬∃, yielding the correct reading. Movement of the second almost to a position dominating negation would make the

sentence ill-formed (as it does not modify the second argument anymore, but only the first argument that has already been modified by *almost*).

(113)   *Skoro *niko nije* kupio skoro *nist*   Serbo-Croatian
        Almost n-body neg bought almost n-thing
        'Almost nobody bought almost anything'

This sentence is reported to be ill-formed, which is only possible if n-words are non-universal.

Giannakidou (2000, 2002) provides more arguments in favour of her analysis of n-words as universal quantifiers.[262] She argues for example that n-words, similar to universal quantifiers, cannot bind donkey anaphora. Richter and Sailer (1998) argue against this argument since negation forms islands for donkey anaphora anyway. However I do not discuss these elements here in detail, as I take the arguments presented in 7.4.1 and 7.4.2 as sufficient to provide an analysis that takes n-words to be non-negative indefinites lacking quantificational force.

7.5   Conclusions

In this chapter I first argue that the analysis that n-words are negative quantifiers that melt into one larger negative quantifier (Zanuttini 1991, Haegeman 1995, Haegeman & Zanuttini 1996, De Swart & Sag 2002), is not tenable for different reasons: first, the motivation to analyse n-words as negative quantifiers was their resemblance with *Wh*. However, closer examination of this correspondence has shown out that there are serious differences between multiple negation and multiple *Wh* constructions. Second, these analyses fail to explain why languages differ cross-linguistically with respect to the occurrence of NC. Third, n-words may have a non-negative reading in many DE contexts, which cannot be accounted for easily in such a framework. Finally, the uni-directional relation between negative heads NC is not predicted by these analyses.
In this chapter I also discuss the view that all n-words are non-negative and need to be licensed by a possibly abstract negative operator (Ladusaw 1992, Giannakidou 1997, 2000). I show that many of the problems, which follow from the account that takes n-words semantically negative, can be solved by this analysis, but that one particular interpretation of this perspective, namely that n-words are NPI's is problematic, as the behaviour of NPI's is substantially different from that of n-words (n-words are allowed to occur to the left of the negative marker in Strict NC languages, n-words may occur in fragmentary answers, and licensing n-words is clause bound). Moreover, I show that the position that NC is a form of syntactic agreement with respect to negation corresponds neatly to the observed uni-directional relation between negative heads and NC.

---

[262] It should be mentioned that Giannakidou does not argue n-words in all NC languages are universal quantifiers, but she argues that this is the case in a number of languages, such as Greek, Hungarian, or many Slavic languages.

Finally I discuss the approach that takes n-words to be ambiguous between negative quantifiers and NPI's (Zwarts & van der Wouden 1993, Van der Wouden 1994a, Herburger 2001) and show that these analyses face problems too: first the NPI-like behaviour of n-words is not always similar to the behaviour of real NPI's (e.g. in being clause-bound or exhibiting DN effects). Furthermore, I argue that an analysis that can account for NC without falling back on ambiguity is theoretically preferred. Finally, analyses within this approach fail to account for the syntactic correspondences that go along with NC, as has been presented in chapter 5 and 6.

In 7.4, I conclude on the basis of a number of arguments that n-words are best considered as indefinites, lacking quantificational force of their own.

This leaves us at the point where it is possible to draw the main conclusion of this chapter: n-words are non-negative indefinites that are syntactical marked for negation by means of a [uNEG] feature that are crucially different from NPI's. In the next chapter I will formulate my own theory of NC. I will show how all readings can be constructed compositionally, and how my analysis accounts for those problems that other analyses have been facing.

8   A Theory of Negative Concord

In this chapter I will formulate my own theory of sentential negation and Negative Concord. From the previous chapters it follows that a theory of NC has to be based on three pillars: syntax, semantics and typology. The theory that I will propose is a syntax-semantics interface theory. Hence it will be based on the results of both the syntactic and the semantic analyses that have been put forward in the previous chapters. The typological results form the output of this theory, i.e. it should be predicted why certain languages do and others do not exhibit NC and why languages change with respect to that. Thus this theory of NC meets the following criteria:

- It should be syntactically adequate: the syntactic observations with respect to syntactic status and position of negative elements that have been formulated in chapters 5 and 6 should form the input for the theory.
- It should be semantically adequate: the observations from chapter 7, namely that n-words are neither negative quantifiers, nor NPI's and that the licensing of n-words is a form of (syntactic) agreement, should form the input for the theory as well.
- It should be typologically adequate: the theory should explain all generalisations with respect to negation and NC that have been formulated on the basis of the empirical results in chapter 4 and 5, both diachronically and synchronically.

This chapter has been built up as follows: in section 8.1 I will formulate a set of hypotheses that forms the outline of my proposal, and I will show how the correct readings fall out naturally for the different types of languages that have been explored in chapter 5. In section 8.2 I will show how the problems that proved to be problematic for the analyses described in chapter 6 and 7 are solved within the approach that I propose, and how the typological distribution of NC languages is predicted by this analysis. Section 8.3 finally shows how the proposed theory for NC corresponds to language acquisition and language change (the Jespersen Cycle).

8.1   Proposal

The central idea behind this theory is that Universal Grammar allows for more than one way of expressing negation. The set of languages and varieties that have been under investigation manifested at least two different ways of expressing negation, which I tentatively call *syntactic negation* and *semantic negation*. These different ways are roughly defined as follows:[263]

---

[263] Earlier versions of this proposal have been presented in Zeijlstra (2004a) and Zeijlstra (2004b).

(1)   *Semantic negation*: every negative element corresponds 1:1 to a negative
       operator.

(2)   *Syntactic negation*: negative elements mark the presence of a (c)overt negative
       operator.

This classification, which can be divided into several subclasses, forms the core of the
proposal that is based on the analyses presented in the previous chapters on the syntax
and semantics of negation.

It follows immediately from the definitions in (1)-(2) that the two ways of expressing
negation correspond to the cross-linguistic variation with respect to NC. Languages
that exhibit semantic negation, defined as in (1), do not allow a negative element to be
assigned a non-negative reading, since every instance of morpho-phonological
negation corresponds to a negative operator. As a consequence, these languages do
not have n-words at their disposal, since n-words may receive non-negative readings.
Therefore languages that express negation by means of semantic negation are Double
Negation (DN) languages.
NC languages obviously violate the definition in (1) since not every negative element
corresponds to a negative operator. NC languages fall under the category of syntactic
negation. This means that negative elements are not necessarily the realisation of
negative operators, but they may also mark the presence of a (c)overt negative
operator. In the case of NC, this means that there is only one negative operator, and
the other negative elements only mark the presence of this operator.
Note that this way of expressing negation opts for different subclasses: it can be the
case that no overt negative element corresponds to a negative operator and that the
negative operator, responsible for the negative semantics, is only covertly present. It is
also possible that in a particular language some negative elements correspond to a
negative operator (i.e. they are semantically negative), and other negative elements
are non-negative, only marking the presence of a negative operator (i.e. being
syntactically negative). I will argue that the first, strict version of (2) accounts for
Strict NC, and that the second, less strict version accounts for Non-Strict NC
languages.

In the following subsections I will show how this proposed mechanism works in
detail: in 8.1.1 I will discuss how this mechanism predicts correct syntactic and
semantic results for Strict NC languages; in 8.1.2 I will describe how this mechanism
works for Non-Strict NC languages and in 8.1.3 I will discuss how this system works
for DN languages.

8.1.1   Strict Negative Concord

The central hypothesis behind the assumption that NC languages express (sentential)
negation by means of syntactic negation (2) is that negation in these languages

exhibits syntactic agreement that, in principle, does not differ from (syntactic) person or tense agreement.

In this subsection I discuss which consequences this view has for the interpretation of n-words and negative markers and for the syntactic structure of negative expressions. As has already been shown in chapter 7, n-words are non-negative indefinites that are syntactically marked for negation, i.e. they bear an uninterpretable [uNEG] feature, that at some point during the derivation needs to be checked against an overt or covert element that carries an interpretable [iNEG] feature. This feature checking is governed by the syntactic operation Agree. Thus NC is the realisation of an agreement relation between a negative operator and an n-word.

However, the assumption that n-words consist of a feature [uNEG] raises four major questions: (i) what is the status of the negative feature of the negative markers in Strict and Non-Strict NC languages; (ii) how is the negative operator introduced; (iii) what is the semantic representation of the negative operator $Op_\neg$; and (iv) how does this mechanism allow for NC relations in which more than one n-word is involved?

The first question is about the semantic properties of negative markers in NC languages. The system proposed provides two different options, and we will see that both options are realised in natural language. The first option is that negative markers carry an uninterpretable [uNEG] feature, the other option is that negative markers carry an interpretable negative feature [iNEG]. I argue that negative markers in Non-Strict NC languages carry an [iNEG] feature, but that negative markers in Strict NC languages carry a [uNEG] feature.

Evidence that indicates that negative markers in Strict NC languages are semantically non-negative comes from the fact that in these languages negation scopes over quantifiers, like *much* or *many*, which dominate the negative marker, whereas this is excluded in Non-Strict NC languages.

(3)   a.   Milan moc *ne*jedl   Czech
             Milan much neg.eat.PERF.
             neg > much: 'Milan hasn't eaten much'
             *much > neg: 'There is much that Milan hasn't eaten'
       b.   Molto *non* ha mangiato Gianni   Italian
             Much neg has eaten Gianni
             *neg > much: 'Gianni hasn't eaten much'
             much > neg: 'There is much that Gianni hasn't eaten'

Another piece of evidence is that in Strict NC languages, contrary to Non-Strict NC languages, the position of the negative operator is distinct from the position of the negative marker. For example non-subject NPI's may occur to the left of the negative marker, whereas this is forbidden in Strict NC languages.

(4) a. <u>Ani nohu jsem</u> (tam) *ne*videl.   Czech
          Neg-even a-leg-ACC.SG I-am (there) neg-seen
          'I haven't been seeing anyone'
     b. *<u>Ni una sola alma</u> *no* he visto   Spanish
          Neg-even a single soul not I-have seen
          'I haven't seen anyone'

In (3)a and(4)a, the objects (OB's) are under the scope of the negative operator $Op_\neg$, and in (3)b and (4) b they are not. In Non-Strict NC languages the negative marker may coincide with $Op_\neg$. This is not possible in Strict NC languages. The logical forms are therefore as in (5).

(5) a. $[_{NegP}\ Op_\neg\ [_{vP}\ OB\ neg_{[uNEG]}\text{-}V]]$ Strict NC
     b. $[_{XP}\ OB\ [_{NegP}\ neg_{[iNEG]}\text{-}V]]$ Non-Strict NC

Hence negative markers in Strict NC languages are semantically non-negative and are therefore the phonological realisation of a [uNEG] feature.

The second question to be addressed concerns the presence of the negative operator. If negative elements in Strict-NC languages carry [uNEG], they cannot be interpreted as negative operators. Yet, a negative operator should be present in negative sentences, both for semantic reasons (otherwise these sentences would not be semantically negative) and for syntactic reasons (otherwise there is no element carrying [iNEG] that negative elements can check their [uNEG] features against). Hence n-words and negative markers need to participate in a feature checking relation with an (abstract) negative operator $Op_\neg$ that carries [iNEG]. This leads to the following question: why is the negative operator phonologically empty?

Generally the postulation of covert material is a theoretical last resort operation, as it is preferable to derive the semantics of a sentence without adopting abstract material. Still there are good arguments to assume the presence of an abstract negative operator: (i) the examples in (3) and (4) prove that the negative marker occupies a different position in the clause than $Op_\neg$; (ii) making the abstract negative operator overt would not change the semantics of negative expressions in Strict NC languages. In those cases the negative marker remains semantically non-negative and stands in an Agree relation with an overt negative operator. Although this alternative configuration does not contain covert material, its semantics is identical to the semantics of the configuration with $Op_\neg$ being phonologically absent. The presence of a negative operator (carrying [iNEG]) is already triggered by the presence of the negative marker carrying [uNEG]. This means that there is no need for speaker or hearer to include an overt negative operator, and hence for reasons of economy, a representation with a covert negative operator is the preferred one.

Note, however, that it is not impossible for a language to provide phonological content for the abstract negative operator. As we saw in 3.2.3, languages that express negation by means of a negative marker Neg° may include a second negative marker

that eventually can be reinterpreted as the negative operator (along the lines of the Jespersen Cycle).[264]

The third question concerns the semantics of the negative operator $Op_\neg$. I adopt the analysis proposed by Giannakidou (1997), following Heim (1982), that the negative operator is an adverbial operator that not only introduces negation at LF, but also binds all open variables under existential closure. Hence the meaning of the negative operator is:

(6) $[[Op_\neg]] = \neg(\exists)$[265]

This means that all free variables that are introduced in vP or below will be bound by the existential quantifier that is induced by $Op_\neg$. One variable that can be introduced in vP is the event variable e (7).

(7)   Paul didn't arrive
         $\neg\exists_e[\textbf{arrive'}(e, \textbf{p})]$[266]

Other variables are introduced by indefinite DP arguments or indefinite adverbs. As I argued in chapter 7, n-words are indefinite elements that introduce a free variable. I follow Von Stechow (1993, 2004) that indefinite arguments or adverbs are of type $<<e,t>t>$ which have a predicative but no quantificational nature. Hence the meanings of n-words are as in (8).

(8)   a. $[[\text{n-body}]] = \lambda P.[\textbf{Person'}(x) \& P(x)]$
         b. $[[\text{n-thing}]] = \lambda P.[\textbf{Thing'}(x) \& P(x)]$
         c. $[[\text{n-ever}]] = \lambda P.[\textbf{Time'}(t) \& P(t)]$
         d. $[[\text{n-where}]] = \lambda P.[\textbf{Place'}(p) \& P(p)]$

Note that *n-* (the n-word corresponding to *no* in English) is of type $<<e,t>, <<e,t>,t>>$ (9), as it requires two predicates.

(9) $[[\text{n-}]] = \lambda P \lambda Q[P(x) \& Q(x)]$

Hence if one or more n-words are base-generated in vP, their free variables are unselectively bound by the same existential quantifier that is introduced by $Op_\neg$, leading to single negation readings without unbound variables. In a Strict NC

---

[264] French *pas* is a good example of such a negative operator. Italian *mai* may be analysed in the same way.
[265] The brackets indicate optionality. If there is no open variable, the negative operator will not introduce existential closure.
[266] This reading is not complete yet. Other variables such as temporal or modal variables may be introduced later on and bound by an other existential quantifier. Otherwise thesentence means that 'Paul never arrived.' This fact supprts the analysis stated in chapter 6.3 that said that in most languages NegP is dominated by TP, which assumably introduces temporal variables.
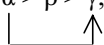
language such as Greek a sentence as (10) has a reading in which *x* and *e* are both
bound by negation.

(10)   *Dhen* irthe *KANENAS*
        Neg came n-body
        'Nobody came'
 $\neg\exists_{e,x}$**came'**(e, x)

Later in this subsection I will show how these readings compositionally follow from
the proposed syntactic structure.

The fourth question addresses NC relations between two or more elements containing
[uNEG] features. As I concluded above, this is the case for every instance of Strict
NC, since the n-words and negative markers carry a [uNEG] feature in these
languages. I argue that these NC relationships are the result of multiple agreement (cf.
Ura 1996 and Haraiwa 2000, 2001), i.e. the possibility that multiple elements with a
[uF] feature check their features against one single element carrying [iF] (cf. also
2.1.3).
Chomsky (2001) argues that multiple Agree is illicit because it violates the Defective
Intervention Constraint (9).

(11)   *$\alpha > \beta > \gamma$, whereby α, β, γ match and $>$ is a c-command relation.

In (9) Agree(α, γ) is not allowed since β is a matching goal and β is inactive as a result
of Agree with another probe. In the case, however, in which β is not inactive yet (its
feature has not been deleted yet in the derivation) this constraint also forbids a
simultaneous feature checking relation between α and β and α and γ.

(12)   *$\alpha > \beta > \gamma$, whereby α, β, γ match and $>$ is a c-command relation.

The reason why (12) is ruled out is because the Defective Intervention Constraint is a
representational condition (i.e. a filter). Since β becomes inactive after Agree(α, β),
Agree(α, γ) is ruled out according to (9).
Haraiwa (2000, 2001) argues, however, that the DIC in its present form is too strict to
account for several empirical phenomena, such as multiple nominatives in Japanese
(see also chapter 1.1.3) and he proposes to replace the representational DIC by a less
powerful derivational DIC, that (i) forbids inactive goals to intervene in an Agree
relation, but (ii) allows a probe to check for all possible goals in an 'accessible'
domain. Hence, after merger of the probe, multiple elements may stand in an Agree
relation with the probe.
This still rules out cases as in (9), but allows multiple feature checking as in (12), as
long as β is still active. I follow Haraiwa in assuming that the Defective Intervention

Constraint should be derivational, which allows multiple feature checking as a single syntactic operation as in (13):

(13)   α > β > γ,   whereby α is probe and β, γ are matching goals for α and > is a c-
       command relation.

Under these assumptions multiple Agree also applies to NC as multiple [uNEG] features can stand in an Agree relation with one negative operator [iNEG] as long as no intervening negative element has its [uNEG] feature checked at an earlier stage of the derivation.

To summarise, the analysis for Strict NC languages is as follows:

- Negative markers are the phonological realisation of a [uNEG] feature.
- N-words are semantically non-negative indefinites that carry a [uNEG] feature.
- Negation is introduced by a covert Negative operator $Op_\neg$ in Spec,NegP that carries an [iNEG] feature. $Op_\neg$ does not only introduce a negation at LF, but also unselectively binds all free variables under existential closure.
- NC is the result of multiple Agree between $Op_\neg$, the negative marker and any present n-words.
- The reason for the absence of an overt negative operator is functional: its phonological realisation would not contribute to the interpretation of the sentence.

Now I will illustrate how this analysis explains the correct semantics for six prototypical languages of the phases of the Jespersen Cycle: Czech (Phase I), Catalan (Phase II)[267], Middle Dutch (Phase III), West Flemish (Phase IV), Bavarian (Phase V) and (substandard) English (Phase VI).
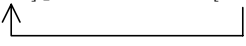
Phase I: Czech
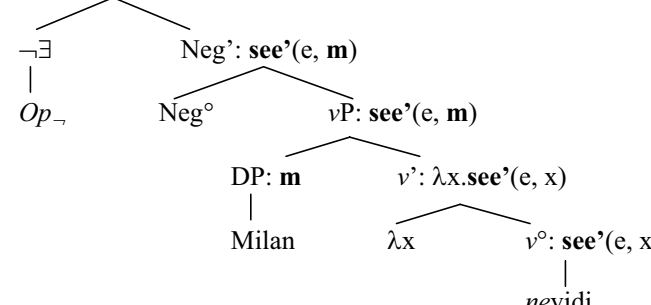Czech is a Strict NC language in which the negative marker forms a prefix on V_{fin} (8).

(14)   Milan *ne*vidi   Czech
       Milan neg.sees
       'Milan doesn't see'

The negative marker in Czech is the realisation of a feature [uNEG] that needs to be eliminated at some point during the derivation. This feature [uNEG] projects a category Neg°. The specifier position of this projection, Spec,NegP is filled by $Op_\neg$, which carries [iNEG]. Hence feature checking takes place under spec-head agreement in NegP, and [uNEG] is deleted.

---

[267] Catalan exhibits two different dialects: one dialect that is a Non-Strict NC language and another dialect that shows Strict NC behaviour. Obviously the Strict NC variety will be analysed here.

(15)   [$_{\text{NegP}}$ $Op_{\neg\text{[iNEG]}}$ Neg°$_{\text{[uNEG]}}$ [$_{v\text{P}}$ Milan *ne*vidi$_{\text{[uNEG]}}$]]

The LF of (14) consists of the negative operator that induces a Boolean negation and existential closure of the event variable that is introduced by v°.

(16)   NegP: $\neg\exists_e$**see'**(e, **m**)

        $\neg\exists$ Neg': **see'**(e, **m**)

        |

       $Op_{\neg}$ Neg° vP: **see'**(e, **m**)

                 DP: **m** v': λx.**see'**(e, x)

                 |

               Milan   λx v°: **see'**(e, x)

                                   |

                               *ne*vidi

In the case of NC constructions, things work in a similar fashion. In (17) the sentence does not only contain a negative marker, but also an n-word in object position. The meaning of the sentence has one negation only.

(17)   Milan *ne*vidi *nikoho*   Czech
      Milan neg.sees n-body
      'Milan doesn't see anybody'

Both V$_{\text{fin}}$ and the indefinite *nikoho* 'n-body' are marked for negation by means of an uninterpretable feature [uNEG]. The negative feature [uNEG] projects Neg° and $Op_{\neg}$ occupies Spec,NegP. Since Agree is subject to locality conditions that require the negative verb and the negative object to be in the same phase as the negative operator or on the phase edge of the lower phase, the object moves to a vP adjunct position, leading to the syntactic representation in (18).

Under Multiple Agree both negative elements are allowed to have their negative features checked against the same $Op_{\neg}$ that is located in Spec,NegP. Hence no [uNEG] feature remains undeleted.

(18)   [$_{\text{NegP}}$ $Op_{\neg\text{[iNEG]}}$ [$_{v\text{P}}$ *nikoho*$_{\text{[uNEG]}}$ [$_{v\text{P}}$ Milan [$_{v°}$ *ne*vidi$_{\text{[uNEG]}}$]]]]

This syntactic representation leads to a single semantic negation, as the only semantically negative element is the abstract negative operator. According to the definitions in (8), *nikoho* 'n-body' is an indefinite that has no quantificational properties and introduces a free variable. This variable will be bound through existential closure under the negative operator, yielding an existential reading $\neg\exists$ (cf. Heim 1982, 1983, Acquaviva 1995, Giannakidou 1997 for similar treatments).

(19)   NegP: $\neg\exists_{e,u}$[**Person'**(u) & **see'**(e, **m**, u)]

$\neg\exists$ Neg': **Person'**(u) & **see'**(e, **m**, u)

|

$Op_\neg$ Neg° vP: λx.[**Person'**(u) & **see'**(e, x, u)](**m**) =
                                  Person'(u) & **see'**(e, **m**, u)

DP: **m** vP: λx.[**Person'**(u) & **see'**(e, x, u)]

|

Milan λx vP: λP.[**person'**(u) & P(u)](λy.**see'**(e, x,y)) =
                                          Person'(u) & **see'**(e, x, u)

DP v': λy.**see'**(e, x,y)

|

λP.[**person'**(u) & P(u)] λy v°: **see'**(e, x,y)

| |

nikoho   *ne*vidi
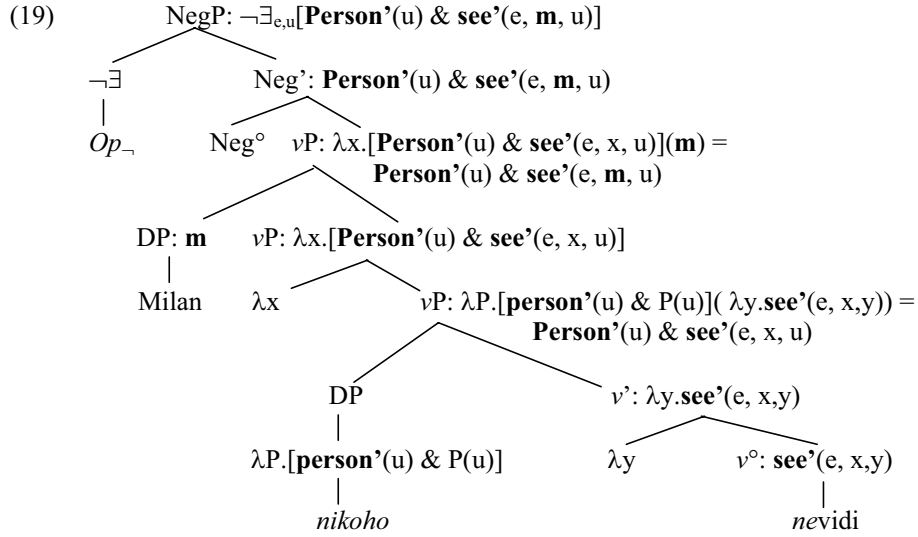
Czech NC constructions with a subject n-word in postverbal position are similar to constructions with n-words in object or non-argument position (20).

(20)   *Ne*volá *nikdo*.
         Neg-calls n-body
         'Nobody is calling'

The n-word, being base-generated in Spec,vP position, and V_{fin} both carry a [uNEG] feature that is deleted against $Op_\neg$'s [iNEG] feature under multiple Agree (21). Since the uninterpretable features have been checked against the [iNEG] feature of $Op_\neg$, the derivation converges at LF and will be interpreted as a single negation. The negative operator is in its turn responsible for the introduction of the negation in the semantic representation as well as for the binding of the variables *e* and *u* (22).

(21)   [$_{NegP}$ $Op_{\neg[iNEG]}$ [Neg° *ne*volá$_{[uNEG]}$ [$_{vP}$ *nikdo*$_{[uNEG]}$]]

(22)   nevola $\sim\!\sim\!>$ **call'**(e, x)
         nikdo $\sim\!\sim\!>$ λP.[**person'**(u) & P(u)]
         nikdo(nevola) $\sim\!\sim\!>$ λP.[**person'**(u) & P(u)] (λx. **call'**(e, x))
                         = **person'**(u) & **call'**(e, u)
         $Op_\neg$ $\sim\!\sim\!>$ $\neg\exists$
         $Op_\neg$ (nikdo(nevola)) $\sim\!\sim\!>$ $\neg\exists_{e,u}$[**person'**(u) & **call'**(e, u)]

As Czech is a Strict NC language, the reverse order of V_{fin} and the subject at surface structure is also grammatical with an NC reading. The underlying syntactic representations do not differ crucially. In (21) I proposed that V_{fin} moves along with

the verb to Neg°. I assume that V_{fin} in (23) remains at $v°$. Hence (23) has a syntactic structure as in (24).

(23)   *Nikdo ne*volá.
         N-body neg-calls
          'Nobody is calling'

(24)   [$_{NegP}$ $Op_{\neg[iNEG]}$ [$_{vP}$ *nikdo*$_{[uNEG]}$ [$_{v°}$ *ne*volá$_{[uNEG]}$]]]

Phase II: Catalan
Catalan is an interesting language in the study of negation. First it exhibits regional variety with respect to being Strict or Non-Strict NC. Second, in several varieties of Catalan, a second negative marker *pas* ('step') can optionally be included in a negative expression. Hence it is a language in Jespersen Phase II. In this subsection I discuss the Strict NC variety of Catalan only.

In (25) negation is expressed by means of two negative markers.

(25)   *No* sera (*pas*) fàcil   Catalan
         Neg will.3sg neg/step easy
          'It won't be easy'

I adopt the standard assumption that *no* is base-generated in Neg° (Giannakidou & Quer 1995). This analysis is in line with the observation (see 6.4) that the negative marker blocks true negative imperatives in Catalan (cf. Grinstead 1998).

(26)   *¡*No* canta esa canción!   Catalan
         Neg sing.imp that song
          'Don't sing that song'

I adopt that *pas*, as in French, originates in a *v*P adjunct position. Furthermore I take *pas* to carry [uNEG] as it is optional, and it does not have to participate in the expression of negation.
Since preverbal negative markers carry [uNEG] in Strict NC languages, (25) has a syntactic representation with two elements that need to check their [uNEG] feature against the [iNEG] feature of the abstract $Op_\neg$.

(27)   [$_{NegP}$ $Op_{\neg[iNEG]}$ [$_{Neg°}$ *No*$_{[uNEG]}$ sera [$_{vP}$ *pas*$_{[uNEG]}$ fàcil]]]

In (28) we find an instance of NC in Catalan that has three negative elements: *no* and *pas* and an object n-word *ningú* 'n-body'.

(28)   *No* vull *pas* acusar *ningú*
         Neg want.1SG neg accuse n-body
          'I don't want to accuse anyone (at all)'

Assuming that *ningú* is in a *v*P adjunct position at some point during the derivation as well as *pas* is, the NC reading follows immediately as a result of multiple agreement between the [iNEG] feature of the negative operator and the [uNEG] features of the three negative elements. As there is only one element carrying [iNEG], there is only one negation at LF.

(29)   [NegP *Op*$_{\neg[iNEG]}$ [Neg° *No*$_{[\text{uNEG}]}$ vull [*v*P *pas*$_{[\text{uNEG}]}$ [*v*P *ningú*$_{[\text{uNEG}]}$ accusar]]]]

Phase III: Standard French
Standard French is a prototypical Phase III language. It is both a Strict NC language (as the negative subject can be followed by the preverbal negative marker *ne*) and a Non-Strict NC language (since the negative subject cannot yield an NC reading if it is followed by *pas*). In this section, I will discuss Strict NC examples of French only.

Standard sentential negation in French (30) consists of the element *ne*, base-generated in Neg°, carrying [uNEG], and *pas*, base-generated in a *v*P adjunct position, moved to Spec,NegP, and carrying [iNEG]. Hence *ne*'s [uNEG] feature is deleted after checking against *pas*' [iNEG] feature, as in (31).

(30)   Jean *ne* mange *pas*   French
         Jean neg eats neg
         'Jean doesn't eat'

(31)   [NegP pas$_{[iNEG]i}$ [Neg° ne mange$_{[\text{uNEG}]}$] [*v*P t$_i$ Jean]]

As *pas* carries [iNEG], it is an overt realisation of the negative operator. Hence *pas* translates as $\neg\exists$. Hence the negation and the existential quantifier introduced by *pas* bind the event variable, and sentential negation is yielded.

(32) $\neg\exists_e$**eat'**(e, **j**)

NC constructions in French do not allow the presence of *pas*. Given that *ne* and n-words in standard French carry [uNEG], the negative operator in Standard French needs to be realised covertly. Therefore (33) has a syntactic representation as in (34).

(33)   Jean *ne* mange *rien* (**pas*)   French
         Jean neg eats n-thing
         'Jean doesn't eat anything'

(34)   [NegP *Op*$_{\neg[iNEG]}$ [Neg° ne-mange$_{i[\text{uNEG}]}$] [*v*P rien$_{[\text{uNEG}]}$ Jean t$_i$]]

The semantics follows immediately from (34). *Op*$_\neg$ induces the negation, which binds all free variables under existential closure. The sentence obtains a reading as in (35).

(35) $\neg\exists_{e,x}$**eat'**(e, **j**, x)

Cases in which the subject in French precedes the negative marker *ne* are slightly more complicated, since the abstract negative operator and *personne* 'n-body' are both located to the left of *ne*, and Spec,NegP appears to be doubly filled. However, as *personne* has been base-generated at an earlier stage in the derivation in Spec,*v*P, it is licensed by the negative operator in Spec,NegP (37).

(36)   *Personne ne* mange   French
           N-body neg eats
           'Nobody eats'

(37)   [$_{NegP}$ $Op_{\neg[iNEG]}$ [$_{Neg°}$ *ne*- mange$_{i[uNEG]}$] [$_{vP}$ *personne*$_{[uNEG]}$ [$_{v°}$ t$_i$]]]

The derivation in (37) is interpreted as

(38) $\neg\exists_{e,x}$[**Person'**(x) & **Eat'**(e, x)]

The structure in (37) does not reflect the word order at surface structure, as the subject in French obligatorily moves to Spec,TP and the negative marker, being incorporated in V$_{fin}$, moves to T°. However, extraction of the subject out of the negative quantifier is not allowed, since the variable introduced by the subject needs to be bound by the existential quantifier. In order to solve this problem, I argue that the subject forms a compound with the negative operator, and that this compound, consisting of the negative operator (introducing existential closure) and the subject indefinite *personne*, moves to Spec,TP.

(39)
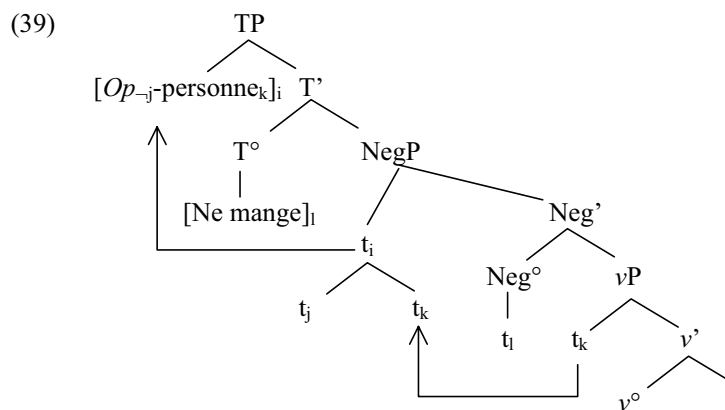
As the internal order of the relevant items has not been changed, the movement from Neg to T (both head and specifier movement), does not influence the interpretation in

(38). In (39) the negative operator still precedes all n-words, and hence all free variables remain bound.[268]

Phase IV: West Flemish
West Flemish is a Phase IV language, which means that the preverbal negative marker *en* is no longer obligatorily present to express sentential negation, and that the adverbial negative *nie(t)* is the main expression of sentential negation. As West Flemish is a Strict NC language (as has been shown in chapter 4), n-words may precede both negative markers, and still yield an NC reading. In light of the previous discussion this implies that both negative markers in West Flemish carry [uNEG]. Hence the way NC readings are composed in West Flemish does not differ significantly from the composition of NC readings in other languages, except for the fact that a *v*P adjunct position may be overtly filled with an element carrying [uNEG].

A simple negative sentence as in (40) contains one or two negative markers that are licensed by the abstract negative operator (41), yielding the interpretation (42).

(40)   … da Valère *nie* (*en*) klaapt
           … that Valère neg neg talks
           '… that Valère doesn't talk'

(41)   [$_{NegP}$ *Op*$_{\neg[iNEG]}$ [$_{vP}$ *nie*$_{[uNEG]}$ Valère [$_{v°}$ *en*-klaapt$_{[uNEG]}$]]]

(42) $\neg\exists_e[$**Talk'**(e, **v**)]

This mechanism also applies if an n-word is included as in (43). Every negative element carries a [uNEG] feature that is checked against the negative operator, and every variable that is introduced (either the event variable introduced by *v*°, or the variable that is introduced by the n-word *nieman* 'n-body') is bound under negative existential closure that is applied by *Op*$_\neg$ (44). Hence the reading of (43) is as (45).

(43)   … da Valère tegen *nieman nie en* klaapt
           … that Valère neg neg talks
           '… that Valère doesn't talk'

(44)   [$_{NegP}$ *Op*$_{\neg[iNEG]}$ [[$_{PP}$ tegen *nieman*$_{[uNEG]}$] [$_{vP}$ *niet*$_{[uNEG]}$ Valère
           [$_{v°}$ (*en*)-klaapt$_{[uNEG]}$]]]]

(45) $\neg\exists_{e,x}[$**Talk_to'**(e, **v**, x)]

---

[268] This analysis in terms of compounding is a consequence of the fact that LF will interpret a sentence after every phase has been spelled out. In a model of the syntax-semantics interface that immediately interprets new-formed constructions, such an analysis is superfluous: the order *Op*$_\neg$ > *personne*, would be sent to LF and syntactic change with respect to that order would not influence this interpretation.

Constructions in which a subject n-word precedes the negative markers *en* and *nie* (46) are accounted for by the fact that the abstract operator in Spec,NegP has dominated the subject n-word in Spec,*v*P. In order to move to a higher position in the clause, the subject n-word scrambles out of *v*P and forms a compound with the negative operator in order to fulfil the syntactic and semantic licensing conditions and an NC reading is rendered, similar to French (39).

(46)   … da *nieman* (*nie*) (*en*) klaapt
         … that Valère neg neg talks
         '… that Valère doesn't talk'

(47)   [$_{NegP}$ *Op*$_{\neg[iNEG]}$ [*nieman*$_{[uNEG]}$ [$_{vP}$ *nie*$_{[uNEG]}$ Valère
             [$_{v°}$ *en*-klaapt$_{[uNEG]}$]]]]

(48)   ¬∃$_{e,x}$[**Talk_to'**(e, x)]

Phase V: Bavarian
Bavarian is a Strict NC language classified as a Jespersen Phase V language. The negative marker carries [uNEG] and n-words are non-quantificational indefinites that carry [uNEG] as well. Negation is expressed by means of an abstract negative operator *Op*$_{\neg[iNEG]}$ that binds all free variables under existential closure (49)-(51).

(49)   … dass s'Maral an Hans *ned* hairadn woid
         … that the.Maral the Hans neg marry wants
         '… that Maral doesn't want to marry Hans'

(50)   [$_{NegP}$ *Op*$_{\neg[iNEG]}$ Neg° [S'Maral [an Hans [$_{vP}$ *ned*$_{[uNEG]}$ [v°] [VP hairadn]]]]]

(51)   ¬∃$_{e}$[Marry'(e, **m**, **h**)]

NC readings in Bavarian are derived in a similar fashion, where an additional n-word enters in a feature-checking relation with *Op*$_{\neg}$ as well, and its free variable is bound under existential closure.

(52)   S'Maral woid *koane ned* hairadn
         The.Maral wants n-one neg marry
         'Maral doesn't want to marry anybody'

(53)   [$_{NegP}$ *Op*$_{\neg[iNEG]}$ Neg° [S'Maral [*koane* [$_{vP}$ *ned*$_{[uNEG]}$ [$_{v°}$ woid] [VP hairadn]]]]]

(54)   ¬∃$_{e,x}$[Marry'(e, **m**, x)]

The same mechanism applies to NC constructions with an n-word in subject position.

One issue has remained unsolved so far. NC in Bavarian, West Flemish and the other Dutch NC varieties is not obligatory, i.e., the negative marker(s) may be absent in sentences that contain an n-word. Although one could argue in the case of West Flemish that the optionality of NC is due to the fact that the language changes from a Phase IV (NC) language to a Phase V language that lacks NC. However, such an analysis does not account for the fact that Bavarian does not exhibit obligatory NC either, as is illustrated in (55). The question is of course why in all other observed NC languages the n-word obligatorily needs to be accompanied by a preverbal negative marker, whereas this seems to be optional in Bavarian.

(55)   S'Maral woid *koane* hairadn
          The.Maral wants n-one marry
          'Maral doesn't want to marry Hans'

Weiss (2002) relates this optionality to the fact that Bavarian allows scrambling. He argues that n-words need to move out of vP to NegP in order to establish feature checking relations with Neg° (*ned* in Bavarian, *non* in Italian, according to Weiss) under spec head configuration.[269] Weiss suggests that this movement is realised overtly, whereas this movement takes place in Romance languages after Spell-out. However, the assumption of post Spell-Out movement in Romance is stipulative, and it can be shown that this movement is unnecessary. The reason why NC is always obligatory in Romance languages (in sentences containing an n-word) is related to scope. Without the preverbal negative marker the n-word, could only be licensed inside vP by an abstract $Op_\neg$, in which it would yield a reading where negation is dominated by the existential quantifier that binds the event variable. Since n-words are indefinites and lack quantificational properties, n-words cannot raise out of vP as a result of QR either (whereas this is possible in DN languages, since negative terms are quantificational in those languages). Hence the additional preverbal negative marker is needed, because it is the only way to ensure that $Op_\neg$ applies at a position higher than vP.

Since Bavarian and West Flemish allow scrambling, n-words move out of vP to a position between $Op_\neg$ and vP. Therefore the overt expression of the negative marker in a vP adjunct position is no longer needed, since the presence of $Op_\neg$ above vP (in NegP) has already been marked. This explains the possible absence of *ned* in Bavarian or *nie* in West Flemish negative expressions.

Phase VI: (Substandard) English
Finally, a brief remark about English, which I consider to be a Phase VI language. Most substandard varieties of English are NC varieties (cf. Labov 1966, Ladusaw 1992, Anderwalt 2002), which come about either as Strict NC languages (A-varieties in Ladusaw's terms) or Non-Strict NC languages (B-varieties). This observation is in line with the analysis put forward in chapter 6.1 that negation in English is a syntactic category and hence yields a NegP in negative expressions. Hence substandard

---

[269] Note that I take *ned* to be a negative specifier.

expressions such as (56) can be analyzed as multiple agreement of [uNEG] features against a single $Op_\neg$ (57)-(58).

(56)   John did*n't* do *nothing*
        'John did*n't* do anything'

(57) $[_{NegP}\ Op_{\neg[iNEG]}\ [_{Neg°}\ n't_{[\text{uNEG}]}]\ [_{vP}\ \text{do}\ nothing_{[\text{uNEG}]}]]$

(58) $\neg\exists_{e,x}[\textbf{Do'}(e, \textbf{j}, x)]$

In all the examples above I have shown that Strict NC is the realisation of multiple agreement with negation. Furthermore I have argued that n-words, as well as $v°$, introduce free variables, which have to be bound by existential closure. The negative operator, realised abstractly in strict NC languages, introduces this existential quantifier. Finally, I have shown that this mechanism applies in Jespersen Phase I to Phase VI languages, with minor variation with respect to the position of the negative adverb and the possibility for n-words to scramble out of *v*P.

8.1.2 Non-Strict Negative Concord

Now, I will discuss the difference between Strict and Non-Strict NC languages. As I argued in the previous subsection, this difference can be reduced to the status of the [NEG] feature of the negative marker. In Strict NC languages, the negative marker carries [uNEG] and needs to stand in a checking relation with $Op_\neg$.
In Non-Strict NC languages however the negative marker carries [iNEG] and it is the realisation of the negative operator. Hence, the interpretation of a negative marker in a Non-Strict NC language, such as Italian *non*, is defined as in (59).

(59) $[[non]] = \neg(\exists)^{270}$

In NC constructions in which all n-words occur to the right of the negative marker, the syntactic and semantic requirements are fulfilled in a similar fashion as in Strict NC languages .

(60)   *Non* ha telefonato a *nessuno*
        Not has called to n-body
        'He hasn't called anybody'

(61) $[_{NegP}\ [_{Neg°}\ non_{[iNEG]}]\ [vP\ \text{ha telefonato a}\ nessuno_{[\text{uNEG}]}]$

(62) $\neg\exists_{e,x}[\textbf{Call'}(e, \textbf{he}, x)]$

---

[270] Brackets read as optionality.

Things are different, however, in the case of an n-word in preverbal subject position. The subject n-word, being base-generated in Spec,vP has eliminated its [uNEG] feature after Agree with *non*, and its free variable is bound by the existential quantifier introduced by *non* (63)-(65).

(63)   *Non* ha telefonato *nessuno*
         Neg has called n-body
         'Nobody called'

(64)   [a Gianni [$_{NegP}$ [$_{Neg°}$ *non*$_{[iNEG]}$] [$_{vP}$ ha telefonato *nessuno*$_{[\text{uNEG}]}$]]

(65) $\neg\exists_{e,x}$[**Call'**(e, x, **g**)]

In this case the sentence is well-formed, as the n-word has its feature checked against [iNEG] and the variable introduced by *nessuno* is bound by the negative operator. The fact that this variable is bound implies that the indefinite *nessuno* is no longer allowed to move out of the domain that is introduced by the negative quantifier, i.e., out of the domain c-commanded by *non*. If the n-word raises out of this domain as in (66), it would have a variable as its argument that has been bound by a lower quantifier. Such constructions are illicit at LF (67).

(66)   **nessuno* non* ha telefonato
         N-body neg has called
         'Nobody called'

(67)   *[$_{TP}$ [**Person'**(x) & **Call'**(e, x)] [$_{NegP}$ $\neg\exists_{e,x}$]]

This analysis is supported by the fact that n-words are allowed to participate in NC relations if *non* is absent. In that case, the first n-word is licensed by the abstract negative operator $Op_\neg$, with which it forms a compound (68)-(70).

(68)   *Nessuno* ha telefonato a *nessuno*
         Not has called to n-body
         'Nobody called anybody'

(69)   [$_{NegP}$ [$Op_{\neg[iNEG]}$-*Nessuno*$_{[\text{uNEG}]i}$] [vP t$_i$ ha telefonato a *nessuno*$_{[\text{uNEG}]}$]

(70) $\neg\exists_{e,x,y}$[**Person'**(x) & **Person'**(y) & **Call'**(e, x, y)]

The examples above show that Non-Strict NC readings immediately follow as a consequence of the fact that negative markers in these languages carry [iNEG].

Another prediction that follows from this analysis is that negative markers in languages with more than one negative marker may vary with respect to the interpretability of their [NEG] feature. This prediction is born out, as is illustrated by

Standard French, a Phase III language. Standard French has two negative markers, *ne*[uNEG] and *pas*[iNEG]. In simple negative expressions *pas* moves out of its *v*P adjunct position to Spec,NegP and from there it takes scope over the entire *v*P (71). In NC constructions one n-word obligatorily raises to Spec,NegP to form a compound with *Op*¬ that is base-generated in Spec,NegP (72).

(71)   [TP Jean [T° [*ne* mange]i] [NegP *pas* ti]]   Standard French
        Jean neg eats n-thing
        'John doesn't eat anything'

(72)   [TP Jean [T° [*ne* mange]i] [NegP *rien* ti]]   Standard French
        John neg eats n-thing
        'John doesn't eat anything'

If a subject n-word *personne* moves to Spec,NegP, it forms a compound with *Op*¬ and establishes an NC relation (73). If *pas* is included in such a sentence, it cannot move to Spec,NegP (since it is occupied by *Op*¬ that licenses *personne*). Hence *pas* has to remain in situ and the sentence yields a DN reading (74).

(73)   *Personne ne* mange   Standard French
        N-body neg eats
        'Nobody eats'

(74)   *Personne ne* mange *pas*   Standard French
        N-body neg eats neg
        'Nobody doesn't eat'

A similar analysis holds for Romanian. Romanian has two distinct negative markers, *nu* for tensed and infinitival clauses and *ne* for other untensed clauses such as participles or gerunds. Romanian is a Strict NC language, since the subject n-word is allowed to occur to the left of *nu*. However, the behaviour of untensed negative clauses (participles or gerunds) is typically Non-Strict NC.
This distinction follows immediately by assuming that *nu* carries [uNEG] and *ne* carries [iNEG].

(75)   a.   *Nimeni* *(*nu*)* vine[271]   Romanian
             N-body neg comes
             'Nobody comes'
        b.   *Nimic* a *(*nu*)* manca
             N-thing to neg eat
             'Nothing to eat'

---

[271] Data are from Teodorescu (2004).

(76) a.   Un film de *nimeni* (*ne)vazut   Romanian
           A movie by n-body neg.seen
           'A movie seen by nobody'
      b.   Articol *niciodata* (*ne)citat
           Paper n-ever neg.quoted
           'A never quoted paper'

To summarise, the distinction between Strict NC and Non-Strict NC languages follows immediately from the difference between [uNEG] and [iNEG] markers. Apart from this, the analysis for the construction, derivation and interpretation of Strict NC and Non-Strict NC expressions is identical.

8.1.3   Double Negation

In this subsection I will discuss the derivations and interpretations of multiple negative expressions in Double Negation languages. Double Negation languages express negation by means of semantic negation, which implies that every negative element is lexically negative. In minimalist terms these negative elements carry an interpretable negative feature [iNEG]. If every negative element carries a feature [iNEG], and there are no elements with uninterpretable negative features [uNEG], no syntactic operation with respect to negation is triggered. This means that the information about negation that has already been encoded in the lexicon enters the level of semantic representation without being subject to specific syntactic requirements.

From the generalisations of chapter 5 it follows that Double Negation languages can express negation only by means of a negative adverb, which has been base-generated in a *v*P-adjunct position. As a result of the fact that it is not needed to check negative features of the negative adverb, and there is no overt head Neg° present that needs to have its uninterpretable [uNEG] features checked, movement of the negative adverb from a *v*P adjunct position to a Spec,NegP position is unmotivated and therefore ruled out under minimalist assumptions.

Given the fact that negative clauses in Double Negation languages do not exhibit movement to a position in a functional projection NegP, there is no ground to assume the presence of such a functional projection: Double Negation languages do not have a functional projection NegP, i.e., negation in such languages is not a syntactic category. In section 8.3, I will explain in detail how negation can be acquired as a syntactic category.

Under these assumptions the semantic representations of negative elements in Double Negation languages are straightforward: negative elements are already negative in their lexical semantic representation. Negative elements are either negative quantifiers

or negative markers. Negative Quantifiers are analysed as generalised quantifiers as in (77).

(77) $[[\text{n-Q}]] = \lambda P\neg\exists_{x,...}[Q(x) \,\&\, P(x)]$[272,273]

The negative marker is the phonological realisation of the [iNEG] feature and translates as the negative operator $\neg(\exists)$. For the very fact that it is an operator, the negative operator is able to bind free variables that have been introduced in an earlier stage in the derivation (such as event variables) unselectively.

The correct readings of single and multiple negative sentences in Double Negation languages such as Standard Dutch fall out naturally.

(78)   Jan loopt *niet*   Standard Dutch
        Jan walks neg
        'John doesn't walk'

The sentence in (78) contains a negative adverb only and yields sentential negation. During the derivation, after the merger of verb and subject, the negative adverb takes *v*P as its complement and negates the proposition, after which the subject moves out to Spec,TP[274]. This stage of the derivation is represented in (79).

(79)   [TP Jan$_i$ [$_{vP}$ *niet* [$_{vP}$ t$_i$ loopt]]]

This syntactic structure is interpreted as in (80), which corresponds to the negation of the proposition *John walks*.

(80)
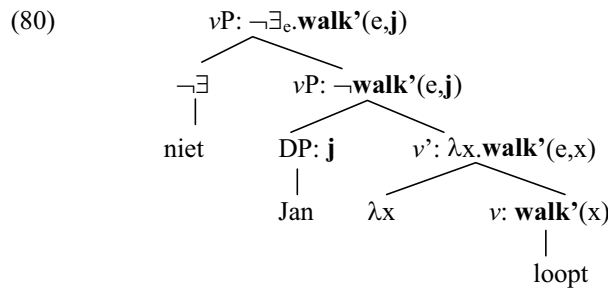
In (81) the sentential negation is the result of the negative quantifier *niemand* 'nobody' that takes scope over the non-negative predicate, yielding the correct reading (83).

---

[272] Q $\in$ {**Person'**, **Thing'**, ...}
[273] The dots indicate that the existential quantifier is also allowed to bind free variables that have remained unbound during the derivation.
[274] Leaving out V2 effects and other phenomena irrelevant to the present discussion.

(81)   *Niemand* loopt   Standard Dutch
       Nobody walks
       'Nobody walks'

(82)   [$_{v}$P Niemand loopt]

(83) vP: ¬∃e,x[**person'**(x) & **walk'**(e,x)]

       DP: λP.¬∃x[**person'**(x) & P(x)] v': λy.**walk'**(e,y)
                        |
                    niemand   λy v°: **walk'**(e,y)
                                                              |
                                                           loopt

An example of Double Negation can be found in (84): the negative quantifier *niemand* 'nobody' is applied to a negative predicate, yielding a Double Negation reading as in (86). In this case the negative operator *niet* denies the predicate, and the negative quantifier *niemand* 'nobody' is applied to the negated predicate. As the subject has moved across the negative operator, lambda abstraction takes place after the predicate has been negated by *niet*.

(84)   *Niemand* loopt *niet*   Standard Dutch
       Nobody walks neg
       'Nobody doesn't walk' = 'Everybody walks'

(85)   [$_{TP}$ *Niemand$_i$* [$_{v}$P *niet* [$_{v}$P t$_i$ loopt]]]

(86)   TP: ¬∃x[**person'**(x) & ¬∃$_e$**walk'**(e,x)] = ∀x[**Person'**(x) → ¬∃$_e$**walk'**(e,x)]

       DP: λP.¬∃x[**person'**(x) & P(x)]   λx.¬∃$_e$**walk'**(e,x)
                        |
                    Niemand   λx   ¬∃$_e$**walk'**(e,x)

                                             XP: ¬∃ vP: **walk'**(e,x)
                                                | |
                                               niet   loopt

Although these semantic representations seem straightforward, it should be noted that the only possible negative elements are negative quantifiers and the negative adverb *niet*. Double Negation languages do not have an abstract negative operator. The main reason for this is that the presence of an abstract negative operator should be licensed by a syntactic licensing mechanism, namely a marker that does not contribute to the negative semantics of the sentence. Double Negation languages lack such markers by definition.

8.1.4   Concluding remarks

In this section it has been illustrated how the presented analysis of negation is able to explain the syntactic and semantic properties of multiple negative expressions. The analysis is based on the distinction between *syntactic* and *semantic negation*. The main difference between NC and DN languages is that in the first type of languages negation is expressed as a result of a feature checking relation between elements carrying [iNEG] and [uNEG]. Negation is the result of agreement between multiple [uNEG] features against a single negative operator *Op¬* carrying [iNEG]. Double Negation languages only have [iNEG] and due to the lack of [uNEG] features no negative projection is realised for syntactic agreement between negative elements.

I have argued that the distinction between Strict and Non-Strict NC languages can be reduced to the interpretability of the [NEG] feature of the negative marker: negative markers in Strict NC languages carry [iNEG]; negative markers in Non-Strict NC languages carry [uNEG].

In the following section I will discuss a number of the consequences of this analysis. First I will show that the analysis predicts the exact typological distribution one finds with respect to the syntactic status of the negative marker and the occurrence of NC. Second I will show how this analysis accounts for several of the problems with respect to NC that have been discussed in chapter 7.

8.2   Predictions and remaining questions

In this section, I will discuss the consequences of the analysis with respect to three different issues: (i) the typological distribution of NC languages; (ii) (syntactic) locality; and (iii) instances of n-words that appear to be interpreted negatively.

A discussion of the typological distribution is motivated by the necessity to explain the generalisation between the syntactic status of negative markers and the occurrence of NC that has been observed in chapter 5, and has been rephrased in syntactic terms in chapter 6. I argued in chapter 7 that other theories of NC failed to predict the correct typological distribution. In 8.2.1 I will show that the analysis presented here succeeds to predict this distribution correctly.

The second issue, syntactic locality, is concerned with the clause-boundness of NC. Clause-boundness was one of the major arguments for proposing a theory of NC in terms of syntactic agreement rather than a theory that takes n-words to be NPI's. In this subsection, I will argue that NC is indeed subject to locality, and is not allowed to violate island constraints. This prediction follows immediately from the theory of NC presented in 8.1.

In chapter 7 we saw that analyses that take n-words not to be inherently (i.e. semantically) negative need to account for instances in which n-words seem to acquire a negative reading without being licensed by an overt licenser. This is for

instance the case with fragmentary answers, n-words in conjunction or disjunction, or n-words that are dominated by the negative adverbial marker.

I will discuss the typological predictions in 8.2.1, the issue of locality in 8.2.2 and the instances of seemingly negative n-words in 8.2.3 and 8.2.4. Subsection 8.2.5 contains some concluding remarks.

8.2.1   The typological distribution of NC

In this subsection I will investigate the consequences for the typology of NC languages. Languages differ with respect to the way they express negation: sentential negation is either realised through *syntactic negation*, in which negation is expressed by means of agreement between a (c)overt negative operator and a number of morpho-phonologically negative elements that are marked for negation by a [uNEG] feature, or it is expressed by means of *semantic negation*, in which every negative element is semantically negative and corresponds to a negative operator.

This difference has some major consequences for the clausal structure of negative expressions in NC languages vis à vis DN languages. In NC languages, negative expressions need to have their [uNEG] feature checked against an element carrying [iNEG]. Following standard minimalist assumptions (Chomsky 1995, 2001, Bobaljik & Thrainsson 1996), feature checking of [F] involves a relation with a corresponding syntactic head F°. This means that all NC languages, as exemplified in section 8.1 (and also in chapter 6) require the presence of a functional category Neg, which heads a functional projection NegP. As has been shown in chapter 6, every negative marker, except negative adverbs in DN languages such as Dutch, are associated to one of the positions in NegP. Hence the prediction is that NC languages can have negative head markers, adverbial negative markers, or both. This prediction is born out as has been shown for Czech/Italian, Standard French and Bavarian respectively.

In DN languages, negation is expressed by means of semantic negation, which does not involve any syntactic requirements with respect to negation. Negation is not a syntactic category in these languages, and hence there is no functional projection NegP. As there is no negative head Neg° in these languages, there are no negative head markers, since these have to be associated with Neg°, which is absent in DN languages. The only position a negative marker can occupy in these languages is a specifier/adjunct position. Hence, contrary to NC languages, DN languages do not allow negative head markers. This prediction is born out: in the set of studied languages no language has been found that has a negative head marker, but does not exhibit NC.

Thus, the following classification of languages can be made:

(87)   A typology of NC and DN languages

Negative Marker	Negative Head	Negative Head + Negative Adverb	Negative Adverb
NC	*Italian/Czech*	*Standard French*	*Bavarian*
DN	∅	∅	*Dutch*

Note that the typology in (87) corresponds exactly to the empirical observation that all languages with a negative head marker are NC languages, but that not every language with an adverbial negative marker only is a DN language. The following (unidirectional) implication holds.

(88)   If a language has a negative marker that is a syntactic head, the language exhibits NC

The analysis predicts correctly the observed distribution of NC languages with respect to the syntactic status of the negative marker.

8.2.2   Locality

Another major consequence of this analysis concerns the fact that NC should be subject to syntactic locality constraints. This means that NC relations cannot be established if two participating elements are in different syntactic domains.
A first consequence of the locality of NC is that it is clause-bound. This prediction is correct, as we see in (89). The fact that NC is clause bound only follows if n-words are taken to be syntactically marked for negation, and not NPI's. In the latter case NC would be predicted not to be clause-bound.

(89)   *Non* ho detto che *nessuno* e arrivato   Italian
        Neg say.1SG that n-body has.IND arrived
        DN: 'I don't say that nobody has arrived'
        *NC: 'I don't say that anybody has arrived'

The only two exceptions to this observation are instances of subjunctive clauses (cf. Haegeman 1995, Herburger 2001) (90) and *neg raising* (cf. Horn 1989) as (91).

(90)   *Non* pretendo che *nessuno* dica *niente*   Italian
        Neg ask.1SG that n-body says.SUBJ n-thing
        'I don't ask that anybody says anything'

(91)   *Non* credo che ha fatto *niente*   Italian
        Neg believe.1SG that has.3sg n-thing
        'I believe that he didn't do anything'

As I argued for in chapter 7.4, subjunctive clauses are not as complete clauses such as indicative clauses, but they lack material in the CP layer. Giorgi (2004) argues that subjunctives clauses do not block movement out of the clause. This is illustrated, for instance, by the fact that long distance anaphora in embedded clauses can only refer to main clause antecedents if they are in a subjunctive clause and not if they are in an indicative clause.[275] In (92) subordinate *proprie* ('his own') can only refer to a main clause antecedent if the subordinate V_{fin} clause is subjunctive.

(92) a. *Quel dittatore$_i$ ha detto che notiziari televisivi   Italian
              parleranno a lunge delle proprie$_i$ gesta
          The dictator has said that news.programs TV talk.FUR.IND at long of.the
              own deeds
          'The dictator said that the news programs will talk a lot about
              his own deeds'
     b. Quel dittatore$_i$ ha detto che notiziari televisivi parlino a lunge delle
              proprie$_i$ gesta
          The dictator has said that news.programs TV talk.FUT.SUBJ at long of.the
              own deeds
          'The dictator said that the news programs will talk a lot about
              his own deeds'

Giorgi accounts for these facts by assigning a different structure for subjunctive and indicative clauses. Indicative clauses are said to have a full CP layer, containing ForceP and FinP, whereas subjunctive clauses lack ForceP (cf. Rizzi 1997).

(93) a. [ForceP … [FinP]]   Indicatives
     b. [FinP]   Subjunctives

The fact that subjunctive clauses are not islands with respect to syntactic operations accounts for the grammaticality of the NC reading of sentences such as (90). Both n-words carry a [uNEG] feature, and these features will be checked against *non*$_{[iNEG]}$ in the matrix clause.

(94) *Non*$_{[iNEG]}$ pretendo [$_{FinP}$ che *nessuno*$_{[uNEG]}$ dica *niente*$_{[uNEG]}$]

The existence of Paratactic Negation (PN) is also explained by this mechanism as is illustrated by (95). Recall that in chapter 3 I analysed verbs or prepositions with a negative connotation as elements that are lexically decomposed in a negative and a non-negative part. E.g. *doubt* is decomposed in *not be sure*. In syntactic terms these elements carry an [iNEG] feature, and hence they can license n-words in subordinate clauses (96).

---

[275] An exception is formed by cases in which no separate subjunctive form is available. In those cases Giorgi argues that the indicative and subjunctive forms are phonologically identical.

(95)   Dudo que el bebé esté mirando a *nadie*   Spanish
        Doubt.1SG that the baby is looking at n-thing
        'I doubt that the baby is looking at anything'

(96)   [ForceP Dudo[iNEG] [FinP que el bebé esté mirando a *nadie*[uNEG]]]

Paratactic Negation has been regarded as one of the major arguments in favour of an analysis of n-words in terms of NPI's. This is due to the fact that in most Downward Entailing (DE) contexts n-words can be licensed, even outside the clause. However, as I showed, this licensing is allowed by the fact that these subordinate clauses are subjunctive. This explains why DE contexts are able to license n-words in subjunctive clauses: subjunctive clauses express non-veridical propositions. Hence subjunctive clauses can be selected by DE matrix clauses, since all DE contexts are non-veridical (cf. Zwarts 1995). As subjunctives clauses do not block agreement relations, n-words can enter a feature checking relation with a DE element (carrying [iNEG]) in a higher clause.

The approach that NC is a form of syntactic agreement has been under attack by Giannakidou (1997), who shows that NC relations in Catalan and Greek are allowed to violate other island constraints, such as adjunct islands.

(97)   No vindrà [perquè vulgui fer res amb ningú]   Catalan
        Neg come.fut because want.SUBJ do n-thing with nbody
        'He doesn't come because he wants to do something with somebody'

However, the minimal pair in (98) shows that this is due to the fact that the adjunct clause is subjunctive. Hence it does not count as a counterargument against the claim that NC is a form of syntactic agreement.

(98)   a.   *No vindrà perquè ha fet res amb ningú   Catalan
              Neg come.fut because he has.IND done n-thing with n-body
              'He won't come because he has done something with somebody'
        b.   No vindrà perquè hagi fet res amb ningú
              Neg come.fut because he has.SUBJ done n-thing with n-body
              'He won't come because he has done something with somebody'

The other counterargument against NC being clause-bound is that NC is possible in so-called *neg-raising* structures. In these structures a negation in a matrix clause is interpreted in the subordinate clause, and may establish an NC relation with other n-words in this clause (cf. (91), repeated here as (99)).

(99)   *Non* credo che ha fatto *niente*   Italian
        Neg believe.1SG that has.3SG done n-thing
        'I believe that he didn't do anything'

Note that this sentence is interpreted as (100), in which the NC reading is predicted.

(100)   Credo che *non* ha fatto *niente*   Italian
        Believe.1SG that neg has.3sg n-thing
        'I believe that he didn't do anything'

Neg raising is discussed at length in Horn (1989), who discusses different types of analyses: syntactic analyses that take neg raising to be a form of movement (Fillmore 1963, Lakoff 1969, Kiparsky & Kiparsky 1971) and pragmatic analyses that argue that neg raising is the result of certain pragmatic implicatures (Partee 1970).

I will not discuss these analyses in details, since the exact analysis is not relevant to the discussion here. I will restrict myself to showing that the behaviour of neg raising is in line with the analysis of NC presented here. I argue that NC is a result of feature checking of multiple negative elements in a proper syntactic domain. This means that the higher negative element in a neg raising construction is still associated with the position in the lower clause. The reading of (99) is identical to the reading of (100), because the position of *non* in (99) is associated to the position of *non* in (100).

This position is supported by the examples in (101) and (102). The reading of the neg raised construction in (101) is predicted to be be identical to the one in (102), which is indeed the case. In (102) no NC reading is available (only a marginally accepted DN reading). The same holds for (101), where *non* cannot establish an NC relation with *nessuno*. The difference between (99)-(100) and (101)-(102) follows from the fact that *non* is related to the Neg° position in the lower clause. Only if syntactic agreement between the negative elements is possible there, NC is available if *non* is subject to neg raising.

(101)   *Non* credo che *nessuno* ha telefonato   Italian
        Neg believe.1sg that n-body has called
        *'I believe that nobody called'
        'I don't believe that nobody called'
        'I believe that nobody didn't call'

(102)   Credo che *nessuno non* ha telefonato   Italian
        Neg believe.1sg that n-body has called
        *'I believe that nobody called'
        'I believe that nobody didn't call'

To conclude, NC obeys syntactic locality restrictions. The only two exceptions, subjunctive clauses and *neg raising*, have proven not to be counterarguments for this theory. These exceptions follow from my analysis by adopting independently motivated assumptions, such as locality differences between indicative and subjunctive clauses.

8.2.3   Sole n-words in NC languages

An often presented counterargument against analyses of NC that take n-words to be semantically non-negative is that one can find instances of n-words that appear to be inherently negative. Two different kinds of examples can be given: examples of single n-words that acquire a negative interpretation (without being licensed overtly), and examples of multiple negative constructions where the NC reading is not available. Examples of the first type are: fragmentary answers (103), n-words in coordinated structures (104), n-words in preverbal position in Non-Strict NC languages (105) and n-words that receive a *v*P-internal interpretation (i.e. an interpretation in which the negation is dominated by an existential quantifier that binds the event variable) (106).

(103)   ¿A quién viste? ¡A *nadie*!   Spanish
        To who saw.2SG? N-body
        'Who did you see? Nobody'

(104)   Me caso contigo o con *nadie*   Spanish
        I marry with.you or with n-body
        'I marry you or nobody (else)'

(105)   *Nessuno* ha telefonato   Italian
        N-body has called
        'Nobody called'

(106)   El bébé este mirando a *nadie*   Spanish
        The baby is looking at n-body
        'The baby is looking at nothing'

Examples of the second kind will be given in 8.2.4.

In this subsection I show that all these instances of seemingly negative n-words follow from my analysis, which takes n-words to be semantically non-negative elements. Several of these examples have already been discussed in chapter 7.2. Other examples have not been accounted for. In this subsection I will briefly discuss the examples in (103)-(106).

Giannakidou (2001) accounts for the acceptability of n-words in fragmentary answers in terms of ellipsis. She suggests that the grammaticality of examples as (103) is the result of PF movement of the n-word to a sentence-initial position, and that the rest of the sentence is deleted under ellipsis (107).

(107)   [[A nadie]$_i$ [$_{NegP}$ ~~no vió~~ t$_i$]
        To n-body neg saw.1SG

However, this analysis faces a serious problem: it does not account for the fact that NPI's cannot occur in fragmentary answers. Giannakidou argued that this is due to the fact that NPI's such as *any*-term cannot be emphasised. However, this restriction also holds for NPI's that can be emphasised, such as Spanish *un alma* 'a single soul.'

(108) a.   Who did you see? *Anybody!
      b.   ¿A quién viste? *¡A un alma!   Spanish
          To who saw.2SG? A single.soul
          'Who did you see? A single soul'

The examples in (108) cannot be explained by arguing that NPI's are required to be c-commanded by a negative marker at surface structure. The examples from Czech in (4), repeated as (109), show that NPI's can also be licensed to the left of the negative marker, as long as they are dominated by the abstract $Op_\neg$. This is shown in (109), where $Op_\neg$ is triggered by the presence of *ne*.

(109)   <u>Ani nohu</u> jsem (tam) *ne*videl.   Czech
       Neg-even a-leg-ACC.SG I-am (there) neg-seen
       'I haven't been seeing anyone'

Hence the analysis by Giannakidou, who argues that an overt negative operator that is deleted under ellipsis licenses n-words, cannot account for the fact that NPI's in fragmentary answers cannot be licensed, contrary to n-words.
I argue that this fact follows from the analysis in which the negation is introduced by an abstract negative operator, which is included in the derivation to establish a feature checking relation with n-words. As NPI licensing is not a syntactic, but a semantic phenomenon, this agreement mechanism applies to n-words only, not to NPI's. Elements with [uNEG] can trigger the presence of $Op_\neg$, NPI's cannot. Hence I argue that n-words in fragmentary answers are licensed by $Op_\neg$ that is able to check their [uNEG] feature as in (110).

(110) $[Op_{\neg[iNEG]}$ [A *nadie*[uNEG]]…][276]
       'Nobody'

The question immediately arises why this negative operator is realised abstractly. The reason for this is straightforward: the overt negative operator is introduced if that is necessary for scopal reasons, otherwise it is left out. In (103) the scope is already clear from the position of *a nadie* in the fragmentary answer.

This analysis also accounts for the acceptability of sole n-words in coordinated structure, e.g. after a disjunction as in (104). In chapter 7.2 I argued that these constructions are unvalid counterarguments against the claim that n-words are

---

[276] The question whether this construction contains abstract material that has been deleted under ellipsis, or the semantics of the negative quantifier plus the negation are sufficient yield the proper interpretation is left aside.

semantically non-negative. Depending on the view on coordination (cf. Merchant 2003) two different explanations of these examples are possible: either the second disjunct contains a copy of the matrix clause (containing a negative marker carrying [iNEG]) that is deleted under ellipsis, or the disjuncted n-word is licensed by $Op_\neg$.

(111) a. [[Me caso contigo] o [~~me no~~[iNEG] ~~caso~~con *nadie*[uNEG]]]
      b. [[Me caso contigo] o [$Op_\neg$[iNEG] con *nadie*[uNEG]]]
          'I marry you or nobody'

The example in (105) addresses the question why in Non-Strict NC languages preverbal subject n-words occur in the clause without a negative marker. In 8.1.2 I explained in detail that this is related to the fact that an n-word cannot dominate the negative operator and that the preverbal negative marker in Non-Strict NC languages is the overt negative operator.

The example in (106), finally, also follows directly from the analysis. Herburger (2000) showed that n-words may occur solely in postverbal position, but that the interpretation of these constructions is different from sentential negation. The example, repeated below, has an interpretation as in (113).

(112) El bébé está mirando a *nadie*   Spanish
      The baby is looking at n-body
      'The baby is looking at nothing'

(113) $\exists e[$**look'**(e) & Agent$(e,$ **b**$)$ & $\neg\exists x[$**Person'**(x) & **Patient'**$(e, x)]]$

This interpretation follows immediately from the theory. The negative marker *no* is absent in this sentence. This marker is included only if required for scope reasons, i.e. to express sentential negation. In this case, the n-word must be licensed by an immediately dominating abstract operator as in (114). Note that in this construction the negation is too low to bind the event variable (that is introduced at $v°$). Hence the event variable will be bound under existential closure introduced by a different operator at a later stage.

(114) [El bébé [$_{v'}$ está mirando [$Op_\neg$[iNEG] [a *nadie*[uNEG]]]]]

It follows that all instances of sole n-words in NC languages can be explained by this theory.

8.2.4   DN in NC languages

Another set of counterarguments against the analysis that n-words are semantically non-negative is formed by constructions consisting of multiple n-words that do not establish an NC relation with each other. Examples are n-words occurring in different

clauses (see 8.2.1), n-words followed by the negative adverbial marker in languages
that exhibit overt scrambling (115), preverbal n-words followed by a negative marker
in Non-Strict NC languages (116), and n-words in focus position (117).

(115)   … da Valère *nie* ketent van *niemand* (*en*) is[277]   West Flemish
        … that Valère neg happy of n-body neg is
        '… that Valère is not happy with nobody'

(116) $^?$*Nessuno non* ha telefonato   Italian
        N-body neg has talked
        'Nobody didn't call'

(117)   No ho telefonato a NESSUNO!   Italian
        Neg have.1sg called to n-body
        'I didn't call nobody!'

The fact that NC relations obey locality conditions is discussed in detail in 8.2.1, and I
will not repeat this discussion here.

Interesting examples are cases such as (115). In these cases the n-word is in a *v*P in
situ position, but it cannot be licensed by the abstract negative operator that checks the
[uNEG] feature of *nie*. This is the case in all NC languages that exhibit scrambling,
such as West Flemish, Bavarian and the varieties of Dutch that have been discussed in
chapter 4. In 8.1.1 I argued that, contrary to e.g. Romance languages, NC languages
such as West Flemish and Bavarian need to overtly move n-words to a higher position
(higher than *v*P) in order to participate in an NC relationship. This scrambling is
motivated for scopal reasons, i.e. to express sentential negation: just as Romance
languages mark sentential negation by means of a negative marker that indicates that
$Op_\neg$ should be higher than *v*P, languages such as Bavarian and West Flemish move
the n-words themselves to a position higher than *v*P in order to render sentential
negation (i.e. binding the event variable by a negative operator). However, this
movement is absent in (115), indicating the n-words may be licensed in situ, i.e. by an
$Op_\neg$ that cannot check *nie*'s [uNEG] feature. Hence, in order to check *nie*'s [uNEG]
feature a second $Op_\neg$ is introduced in the clause, yielding a DN reading.

(118)   [… da Valère [$_{NegP}$ $Op_{\neg[iNEG]}$ [$_{vP}$ $nie_{[uNEG]}$ ketent van
            [$Op_{\neg[iNEG]}$ [$niemand_{[uNEG]}$ (*en*$_{[uNEG]}$) is]]]]]

The example in (116) appears to violate the condition that preverbal n-words may not
be followed by a negative marker. However, this construction is marginally
acceptable if the subject n-word is stressed; then it yields a DN reading. Again this
follows from the fact that the negative operator *non* in Italian cannot license the
subject n-word, as the negative operator needs to dominate n-words in order to

---

[277] Taken from Haegeman (1995): 142.

establish NC relationships. However, if a second, abstract $Op_\neg$ is introduced, e.g. in a focus position in the CP layer, this violation is repaired. Hence these sentences get a DN reading.

(119)   [$_{FocP}$ $Op_{\neg[iNEG]}$ [$nessuno_{[uNEG]}$ [$_{NegP}$ $non_{[iNEG]}$ ha telefonato]]]

This analysis is supported by the fact that focus appears to be able to license n-words anyway, as is shown in the fourth example in (117). Assuming that the focused n-word has to move over the negative operator covertly, it can no longer be bound by the negative operator *non*. Hence a second negative operator is included to license *NESSUNO*, and a DN reading is yielded.

(120)   [$_{FocP}$ $Op_{\neg[iNEG]}$ [$NESSUNO_{[uNEG]i}$ [$_{NegP}$ $non_{[iNEG]}$ ha telefonato t$_i$]]]

It has been shown that every instance of DN in NC languages follows from the theory that has been presented in 8.1. The checking requirements of negative elements trigger the presence of an abstract negative operator. If this negative operator is unable to check the [uNEG] features of all negative elements, a second $Op_\neg$ is required to check these features. Hence the self-licensing mechanism allows DN constructions if licensing by a single $Op_\neg$ is prohibited for syntactic or semantic reasons. Instances of DN in NC languages therefore do not count as counterarguments against the analysis that n-words are semantically non-negative.

8.2.5   Concluding remarks

In this section I showed that the typological classification that has been observed in chapter 5 follows from the theory of NC.

Second, the fact that NC is subject to syntactic locality also follows. I showed that counterarguments against this observation are the result of the fact that subjunctive clauses do not show the same blocking effects as indicative clauses, or the result of *neg raising*.

Third, the assertion that n-words are semantically non-negative requires an explanation for instances of sole n-words that are interpreted negatively. I argued that the introduction of an abstract $Op_\neg$ does not create higher scope, and should therefore be introduced as low as possible. From this requirement explanations for the grammaticality of sole n-words in fragmentary answers, coordinated structures, preverbal and postverbal position fall out naturally.

Finally I showed that this mechanism does not only predict instances of sole n-words, but also of multiple negative expressions that do not yield NC readings.

8.3   Learnability and language change

Although the analysis that I proposed correctly predicts the readings and acceptability of multiple negative expressions, two question remain: (i) how does a speaker of a language know whether a language exhibits syntactic or semantic negation; and (ii) how does the diachronic development of the expression of sentential negation relate to the diachronic development of the interpretation of multiple negation. In this section I will address these questions.

In 8.3.1 I will present a learning mechanism that explains how a language learner knows whether (s)he has to express sentential negation by means of syntactic negation or semantic negation. In 8.3.2 I will describe the relation between NC and the Jespersen Cycle.

8.3.1   The acquisition of negation

My analysis of sentential negation and NC is flexible in the sense that it does not take negation as a universal syntactic category: several languages express negation by means of a syntactic feature checking mechanism, which enables negation to project; other languages have no syntactic category negation at their disposal, and negation does not project in these languages. Since the property of negation is subject to cross-linguistic variation, negation as a syntactic category cannot be taken as part of UG. Hence the fact that a language exhibits syntactic or semantic negation should be the result of first language (L1) acquisition.

The process of acquiring negation has been investigated and it will not be discussed here, since the questions of how, at what age and under which conditions children exactly acquire negation as a syntactic category do not relate directly to the discussion. In this subsection I will sketch the general principle behind this learning process.

The core of the mechanism is that negation is acquired as a syntactic category if and only if there is positive evidence for this syntactic category in the L1 input. If there is no positive evidence, the language learner will not acquire a syntactic category negation.
The obvious question then is what forms the cue for such a syntactic category. In chapter 6 and 8 I argued that the negative projection was instantiated in order to establish a feature checking relation with negative elements carrying [uNEG]. If there are no [uNEG] features present, there is no need to assume the presence of functional head Neg° to check these features. Hence if there are no features [uNEG] present in the L1 input, there is no syntactic category negation.
How does the L1 learner determine the interpretability of [NEG] features? The L1 input for the language learner consists of pairs of syntactic structures and

corresponding meanings. Now, a L1 learner of Dutch receives sentences in his input that correspond to negative meanings:

(121) a. Jan loopt *niet*   ¬**walk'(j)**
           Jan walks neg
       b. Jan ziet *niets*   ¬∃x.[**Thing'**(x) & **see'**(**j**, x)]
           Jan sees neg
       c. *Niemand* houdt van Marie   ¬∃x.[**Person'**(y) & **like'**(y, **m**)]
           N-body likes Mary

Since all negative elements in (121) correspond to a negation in the semantics, the language learner will take these negative elements to be negative operators and they will be assigned [iNEG] only. The language learner has no trigger to assign one of these elements [uNEG] and therefore the language learner does not acquire [uNEG] features.

However, things are different in NC languages. Suppose that a similar set of sentences is offered to a L1 learner of Italian:

(122) a. Gianni *non* ha telefonato   ¬**call'(g)**
           Gianni neg has called
       b. Gianni *non* ha telefonato a *nessuno*   ¬∃x.[**Person'**(x) & **call'**(**g**, x)]
           Gianni neg has called to n-body
       c. *Nessuno* ha telefonato   ¬∃x.[**Person'**(x) & **call'**(x)]
           N-body has called

In (122)a the language learner can still assign [iNEG] to *non*, since it corresponds to the negative operator. However, in (122)b, the L1 learner is confronted with two negative elements, that correspond to one negation only. Therefore only one of the two negative elements can carry [iNEG]. Given that *non* carries [iNEG], this implies that *nessuno* has to carry [uNEG]: it is an element that is morpho-phonologically marked for negation, but it does not contribute to the negative semantics of the sentence. Given that feature checking is always against a higher, c-commanding element, the analysis that *non* carries [uNEG] and *nessuno* [iNEG] is ruled out. Since the L1 takes n-words to carry [uNEG], and a sentence like (122)c does not consist of overt elements carrying [iNEG], the L1 learner also acquires the abstract negative operator $Op_{¬[iNEG]}$.

In Strict NC languages such as Czech, things are slightly different. On the basis of (123)a, the L1 can assign [iNEG] to *ne*. From this it would follow that the n-word *nikoho* carries [uNEG]. However, this leads to a serious problem, since the feature checking relation for (123)c cannot be explained (nor the proper semantics of the NC reading). The only way to resolve this is to reinterpret *ne* as [uNEG] and to assume the presence of $Op_{¬[iNEG]}$ in all sentences in (123).

The difference between Strict and Non-Strict NC languages then is that in Non-Strict NC languages, such as Italian or Spanish, constructions as in (123)c are not present in the L1 input, so that the negative marker remains [iNEG] in these languages during the L1 acquisition.

(123) a.   Milan *ne*vidi $\neg$**see'(m)**
           Milan neg.sees
       b.   Milan *ne*vidi *nikoho* $\neg\exists$x.[**Person'**(x) & **see'(m**, x)]
           Milan neg.sees n-body
       c.   *Nikdo ne*volá. $\neg\exists$x.[**Person'**(x) & **call'**(x)]
           N-body neg.calls

By adopting this simple learning mechanism, one can abstractly describe how the language learner acquires the (un)interpretability of [NEG] features. If the language contains [uNEG] features, the L1 learner learns that such a language exhibits syntactic negation. If it does not contain the [uNEG] features, sentential negation is expressed by means of semantic negation.

Note that this input-output mechanism also accounts for diachronic change. If languages change with respect to the phonological strength or frequency of the presence of negative markers, the L1 learner may decide to assign different status to the [NEG] features. Hence, diachronic change along the lines of the Jespersen Cycle may trigger the occurrence or the disappearance of NC. This phenomenon I will explore in the following subsection.

8.3.2   NC and the Jespersen Cycle

In this subsection, I re-address the (uni-directional) relation between the Jespersen Cycle and NC. The overview presented in chapters 4 and 5 has shown that not all Jespersen Phase V languages are NC languages, whereas the other Phases consist of NC languages only. This classification falls out naturally: if a language lacks NC, it does not have a NegP at its disposal, and hence no position that may be associated with a negative head. The negative marker in DN languages can only occur in a *v*P adjunct position, and thus it is a syntactic phrase. As a consequence of this, all languages that have a negative marker X° are NC languages. The diachronic change of NC into DN or vice versa can thus only take place if a language develops from a Jespersen IV language into a Jespersen V language, or if a language develops from Jespersen Phase V into Phase VI. In this subsection I will discuss these changes in detail: the development of French from Phase IV to Phase V, and the development of English from Phase V to Phase VI.

Standard French is a Phase III language, but in Colloquial French the negative marker is almost completely gone. Hence the fact that Colloquial French still has an optional negative head marker is no longer a cue for French as an NC language. Therefore,

Colloquial French is open to a change from NC to DN. This follows from the learning mechanism presented in 8.3.1.

(124) a. Jean *ne* mange *rien*   Standard French
         Jean neg eats n-thing
         'John doesn't eat anything'
      b. Jean mange *rien*   Coll. French
         Jean eats n-thing
         'John doesn't eat anything'

In (124)a, a language learner is forced to assign [uNEG] to *rien*, but that is no longer the case in the second sentence. The sentence (124)b could be analysed as *rien* carrying [uNEG], licensed by an abstract $Op_\neg$, or as *rien* carrying [iNEG]. The only cue to distinguish between these two options is the frequency of constructions such as (125).

(125) *Personne* dit *rien*
         N-body says n-thing
         'Nobody said anything'

A sufficient number of Negative Spread expressions such as (125) may form a cue to assign [uNEG] to n-words such as *rien*. It is therefore predicted that colloquial French can be divided in two different classes: NC Colloquial French and DN Colloquial French. This classification is indeed found in current French (cf. De Swart & Sag 2002). Speakers differ with respect to a NC or DN interpretation of sentences as in (125) and to many speakers they may even be ambiguous.

The fact that languages differ with respect to keeping NC properties after losing the preverbal negative marker is also illustrated in Dutch microvariation. Although most southern and northern varieties lack a preverbal negative marker *en/ne*, some varieties still exhibit NC, whereas others do not.

The reverse development has been reported for English, where, as discussed in chapter 3.3.3, the negative marker *n't* gradually takes over the role of the main bearer of negation. The fact that *n't* is an X° is a cue for the occurrence of NC. Although English is officially a DN language, many varieties of English are nowadays NC varieties. This is not only restricted to well known NC varieties, such as Black American English Also the majority of British English dialects exhibit NC (cf. Anderwald 2002).
Another argument that supports the analysis that English is underlyingly an NC language is the fact that English expresses sentential negation by using NPI's for indefinite arguments or adverbial expressions. Although I have emphasised that the behaviour of English *any*-terms is crucially different from that of n-words, the surface forms of such expressions are more similar to Romance NC expressions than to the Dutch/German way of expressing such constructions. Moreover, the inclusion of *any*-

terms forms an indication for the hearer that the expression is negative, similar to the inclusion of n-words in NC languages. Although the sentences in (126) are both grammatical and truth-conditionally equivalent, (126)a is the preferred expression.

(126)   a.   I didn't buy (any) sausages
        b.   I bought no sausages

The change in English with respect to the expression of sentential negation induces the occurrence of NC, as predicted by the theory of NC presented in this chapter.

8.4   Conclusion

In this chapter I have presented my theory of NC. As I put forward in the introduction of this chapter a theory of NC should be syntactically, semantically and typologically adequate. I conclude that the theory I presented meets these three criteria. It accounts for cross-linguistic variation with respect to the syntactic status and position of negative markers; it accounts for the fact that n-words do not behave as NPI's or negative quantifiers, but as non-negative indefinites, which carry a formal feature [uNEG]. Finally, from this theory the typological classification of NC languages follows immediately. Hence it also meets the third criterion: typological adequacy.

The theory explains the difference between NC languages and DN languages by assuming that NC languages have grammaticalised negation: it has become part of their syntactic vocabulary. DN languages have not grammaticalised negation, which means that all available lexical information with respect to negation is directly interpreted at LF without giving rise to the syntactic operations Move or Agree. The difference between Strict and Non-Strict NC languages simply follows from the interpretational status of the negative marker itself.
An advantage of this theory is that the parameterisation in a particular language with respect to NC follows from the lexical properties of negative elements in that language. These lexical properties differ only with respect to their [NEG] feature values. The feature values (u/i) for [NEG] features are in their turn the result of L1 acquisition, driven by a simple input-output mechanism.

Moreover, several notorious problems with respect to NC, such as fragmentary answers, n-words that seem to introduce negation, or the clause-boundedness of NC have been explained.

Some questions remain open, or are left aside. I will discuss three of these questions. First, the exact differences in interpretation of sentences with a negative subject in preverbal or postverbal position have not been discussed in detail. Ladusaw (1994) argues that (127)a has a categorical reading and (127)b is thetic. Giannakidou (1999) argues that this categorical reading of *nadie* is the result of movement of the n-word to Spec,NegP. Giannakidou argues (following Ladusaw) that material in Spec,NegP

constitutes the restrictive clause of the negative operator, turning $Op_\neg$ into a tripartite quantifier. If Spec,NegP does not contain material other than $Op_\neg$, as is the case with postverbal *nadie* in (127) the n-word is part of the nucleus of $Op_\neg$ and therefore the negative operator is not a tripartional quantifier (and thus unable to yield a categorical reading). Others (cf. Herburger 2000) argue that topicalisation of XP's always turns the XP into a quantifier. Therefore no special account for the difference between thetic and categorical readings needs to be provided, as it is a mere consequence of subject topicalisation. I leave this issue aside for further research.

(127) a.   *Nadie* vino   Spanish
       b.   *Non* vino *nadie*
            'Nobody came'

A second open question is the possibility of extraction of negation from a negative quantifier in DN languages. Penka & Von Stechow (2002) show that in expression such as (128) the negation dominates the deontic modal verb, whereas the existential part of the quantifier remains under the scope of the modal.

(128) Du muss *kein* Krawatte anziehen   German
       You must no ties put on
       'It is not obligatory that you wear a tie'

Penka & Von Stechow argue that all negative quantifiers are semantically non-negative, and should be licensed by an abstract negative operator. They argue that the difference between NC and DN languages can be reduced to the locality conditions of n-word licensing: DN languages have their n-words licensed immediately, whereas NC languages can have several n-words licensed by a single $Op_\neg$. However, this runs against the observation that only NC languages have an abstract negation at their disposal and predicts that there is no relation between the status of the negative marker and NC, as all languages exhibit a NegP. The interaction between negation and modality, an interesting, yet hardly explored terrain, therefore remains subject of future research.

Finally, the learning mechanism that I presented in 8.3.1 has been applied to negation only. Although this mechanism correctly describes the results of the acquisition of NC, it should be applied to other functional domains such as *Wh*, tense or agreement as well. In Zeijlstra (2004c) I propose a more general version of the mechanism in 8.3.1, showing that it also explains the typological classification of pro drop and V-to-I movement.

9   Conclusions

In this chapter I will briefly list the main conclusions that have been put forward in the previous chapters. In chapter 1, I introduced a series of questions that required an empirical and a theoretical analysis. These questions concerned four different phenomena in the study of negation:

- The way sentential negation is expressed in different languages;
- The way multiple negation is interpreted in different languages;
- The ban on true negative imperatives in several languages;
- The interpretation of constructions in which an ∀-subject precedes a negative marker;

In chapter 1, I put forward two different types of questions: empirical questions and theoretical questions. The empirical questions concern first the exact behaviour of the above-mentioned topics and the correspondences between these topics, i.e. to what extent these topics are correlated.

The theoretical questions are raised in order to provide an explanation for the observed phenomena and their correspondences.
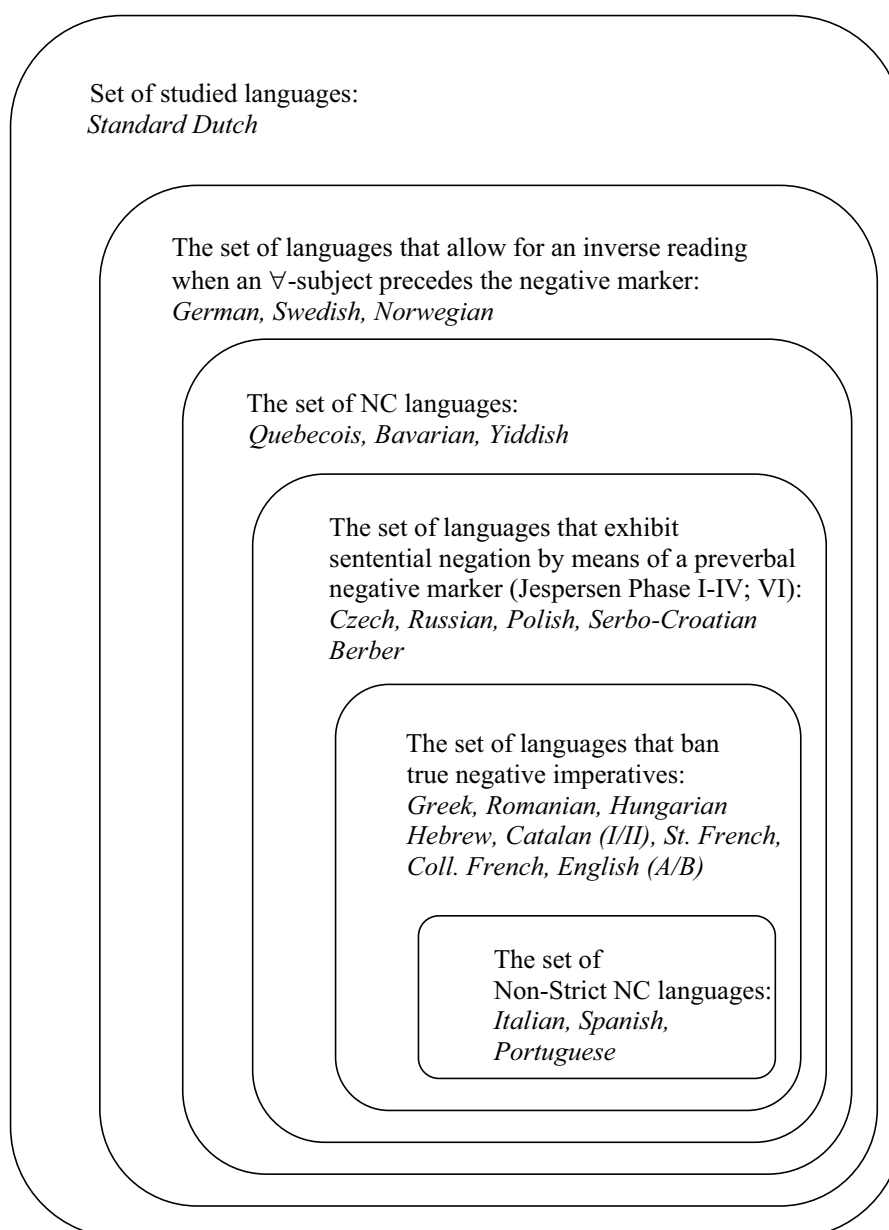
9.1   Empirical results

The empirical results of the study of the correlations is based on threefold empirical domains: Dutch diachronic variation, Dutch dialectological variation (267 varieties have been investigated) and a sample of 25 other languages. The results can be summarised as follows:

- the set of Non-Strict NC languages is a strict subset of the set of languages that ban true negative imperatives;
- the set of languages that ban true negative imperatives is a strict subset of the set of languages that express sentential negation by means of a negative head (i.e. Jespersen Phase I-IV and Phase VI languages);
- the set of languages that express sentential negation by means of a negative head is a strict subset of the set of NC languages;
- the set of NC languages is a strict subset of the set of languages in which constructions in which an ∀-subject precedes the negative marker can be assigned a reverse interpretation (with respect to the subject and the negation).

The results are also summarised in the Venn diagram in (1). Note that all correspondences between the investigated phenomena are unidirectional and give rise to typological implications. These typological implications will not be considered as typological primitives, but they are predicted by the theory of sentential negation and

NC that I have presented, based on a syntactic analysis of negative markers and a semantic analysis of n-words.

(1)   Venn diagram containing all studied languages

Set of studied languages:
Standard Dutch

The set of languages that allow for an inverse reading when an ∀-subject precedes the negative marker:
German, Swedish, Norwegian

The set of NC languages:
Quebecois, Bavarian, Yiddish

The set of languages that exhibit sentential negation by means of a preverbal negative marker (Jespersen Phase I-IV; VI):
Czech, Russian, Polish, Serbo-Croatian Berber

The set of languages that ban true negative imperatives:
Greek, Romanian, Hungarian Hebrew, Catalan (I/II), St. French, Coll. French, English (A/B)

The set of Non-Strict NC languages:
Italian, Spanish, Portuguese

9.2   *Theoretical results*

In chapter 6, I have examined the syntactic status of negative markers. Negative markers come about in different forms: as preverbal, phonologically strong particles (such as Italian *non*), as clitic-like or affixal elements (such as Czech *ne*) or as negative adverbs (such as Dutch *niet*).

I have shown that the first two kinds of negative markers are syntactic heads (X°), whereas negative adverbs are syntactic phrases (XP) (cf. Zanuttini 1998). As a result of this, negative head markers are able to project. All negative head markers are associated to the head position (Neg°) of a particular negative projection NegP. Consequently, all languages that exhibit a negative head marker also exhibit NegP in negative expressions. Two different kinds of languages with respect to the position of the negative head can be distinguished: languages in which the negative marker is base-generated in Neg° and languages in which negative markers are base-generated at some position attached to the V_{fin} (either by head adjunction or as part of the verbal inflectional morphology).

Negative specifiers cannot project a negative projection NegP. However, the presence of negative specifiers does not exclude an abstract realisation of Neg°. Therefore this analysis of the syntax of negation predicts two types of languages with a negative specifier only: languages in which this specifier is in Spec,NegP (headed by an abstract Neg°) and languages in which there is no Spec,NegP position available. In the latter case the negative marker is located in a *v*P adjunct position.

In chapter 6, I also argue that negative markers are the realisation of negative formal features. Formal features come about as either interpretable or uninterpretable. Elements carrying an uninterpretable feature [uNEG] need to check this feature against an element that carries [iNEG]. As all negative head markers that are base-generated in the verbal domain stand in an Agree relation with Neg° or move to Neg°, and given that these syntactic operations can only be triggered by feature checking, negative head markers are the realisation of an uninterpretable [uNEG] feature. Negative heads that are base-generated in Neg° are not necessarily the realisation of [uNEG] but may also be the realisation of [iNEG] (i.e. they are interpreted as negative operators) as they have not been subject to Agree or Move.

Following the assumption that the order of functional categories in the clause is semantically driven (cf. Nilsen 2003) and assuming that sentential negation is binding event variables under negation (following Acquaviva 1995, Giannakidou 1997) (assuming that these event variables are introduced by the highest head in the verbal domain (presumably *v*°)), the location of NegP is such that it should at least dominate *v*P. In some languages this position may even be higher (following Ramchand 2001).

In chapter 7, I have focused on the semantics of n-words evaluating different proposals that have been formulated in the last 14 years. Three different kinds of proposals have been formulated. First, proposals arguing that n-words are negative quantifiers that are subject to resumptive quantification, and therefore melt together into one large negative quantifier binding multiple variables (Zanuttini 1991,

Haegeman 1995, Zanuttini & Haegeman 1991, 1996, De Swart & Sag 2002). I have discussed various arguments that run against such an analysis, and I conclude that n-words are not negative quantifiers.

Second, I have evaluated two proposals (Ladusaw 1992, Giannakidou 2000) that take n-words to be non-negative NPI's that are licensed by an abstract negative operator. I have argued that the observation that n-words are non-negative is correct, but that n-words crucially differ from NPI's, in the sense that n-words are not licensed by proper semantic contexts (namely anti-veridical contexts), but that they are licensed by a syntactic feature checking mechanism.

Third, I have discussed two papers (Van der Wouden 1994a and Herburger 2001) that described n-words as being ambiguous between negative quantifiers and NPI's and I have provided several arguments that show that this approach faces problems as well. I conclude that the approach that takes n-words as non-negative elements that are syntactically marked for negation, is to be preferred.

Finally, I have discussed the quantificational status of n-words and I have argued that n-words should not be considered as quantifiers, but as indefinites (as in Heim 1982) that introduce a free variable that is bound under existential closure. This leads to the following syntactic and semantic representation for n-words:

(2) $[[\text{n-Q}]] = \lambda P.[Q(x) \& P(x)]_{[uNEG]}$, whereby $Q \in \{\textbf{Person'}, \textbf{Thing'}, \ldots\}$

In chapter 8, I have combined the results from chapter 6 and 7. From the analysis in chapter 6 it follows that languages that have a [uNEG] feature at their disposal may project a NegP. As n-words also carry [uNEG] this means that every language that has NC is able to project NegP. Hence the difference between NC and DN languages can be reduced to the availability of a [uNEG] feature. In languages with a [uNEG] feature, (sentential) negation is a form of syntactic agreement, driven by a feature checking mechanism; in languages without a [uNEG] feature every negative element carries [iNEG] and will be interpreted as a negative operator at LF. The latter languages exhibit DN, where is no NegP present and negative agreement is impossible.

Thus, sentential negation can either be expressed by means of *semantic negation* (1) or *syntactic negation* (2) and languages vary diachronically and synchronically with respect to these means.

(3)   *Semantic negation*: every negative element corresponds 1:1 to a negative operator.

(4)   *Syntactic negation*: negative elements mark the presence of a (c)overt negative operator.

I have argued that in NC languages all negative elements are licensed by a negative operator $Op_\neg$ that carries [iNEG]. Being an adverbial operator, this negative operator does not only introduce the Boolean negation, but it is also able to introduce existential closure. Hence this negative operator, translated as (5), binds all free

variables that are introduced by the n-words, and the event variable that is introduced by v^o.

(5) $[[Op_\neg]] = \neg(\exists)$

Adopting Haraiwa's (2001) notion of multiple Agree, this single negative operator is able to license all negative elements carrying [uNEG] within its local domain. This explains a single NC reading.

I argue furthermore that the distinction between Strict and Non-Strict NC languages is the result of the interpretational status of the [NEG] feature on the negative marker: if the negative marker carries [uNEG] it should be bound by a higher abstract $Op_\neg$ that can also bind the preverbal subject n-word. In Non-Strict NC languages the negative marker carries [iNEG] and is therefore the highest element of an NC chain: no n-word is able to dominate this negative marker, since the free variable it introduces cannot be bound by the existential quantifier that the negative operator introduces.

I have shown in chapter 8 that many of the problems that other analyses face have been solved within this analysis or can be solved by adopting mechanisms that have been motivated independently.

In chapter 8, I also address the question how a language learner 'knows' whether a language has a [uNEG] feature. I propose a simple input-output learning mechanism in which the L1 learner connects an utterance to the discourse situation. If the LF that describes the situation contains one negation only, whereas the utterance itself consist of more than one negative element, the language learner analyses at least one of these negative elements as non-negative at LF. Such a negative element is assigned [uNEG]. If such utterances are absent there is no need for the L1 learner to assume the presence of [uNEG] features and these features will not become part of his/her grammar.

From this theory of sentential negation and Negative Concord the typological results presented in (1) follow naturally:

In Non-Strict NC languages the negative marker is the phonological realisation of the negative operator. In order to express sentential negation it should bind the event variable in v^o and therefore this negative marker should be base-generated in Neg^o.

Imperatives have been analysed as truncated syntactic structures that lack TP, but require movement of V_{fin} from v^o (below NegP) to Mood^o (above NegP). If overt material occupies Neg^o, the Head Movement Constraint blocks the formation of such an imperative. Thus all languages that have their negative marker base-generated in Neg^o ban true negative imperatives. This negative marker can either be [uNEG] (e.g. in Greek) or [iNEG] (as in Italian). As there are no negative head markers carrying [iNEG] that have not been base-generated in Neg^o, the set of Non-Strict NC languages is a strict subset of the set of languages that ban a true negative imperative.

Languages that ban true negative imperatives have their negative marker base-generated in Neg^o. Negative head markers are either base-generated in Neg^o or in some position attached to V_{fin}. Consequently, the set of languages that ban true

negative imperatives forms a strict subset of the set of languages that have a negative head marker, i.e. that express negation by means of a preverbal negative marker.

NC is available in languages that express sentential negation by means of syntactic negation, i.e. in languages in which negation may project. I show that this is the case in all languages that exhibit a [uNEG] feature. Languages with a preverbal negative head marker have [uNEG], but languages with a negative specifier only may also have a [uNEG] feature, as long as there is a proper cue for it in the L1 input. NC is such a cue. Hence, if a language exhibits NC, the language has a [uNEG] feature, which is able to project. In such languages there is both a Negº position and a Spec,NegP position available to host a negative marker. However if a language lacks NC, there is no [uNEG] feature and thus no NegP. Then the negative marker may only occupy a *v*P adjunct position, and it follows that there is no DN language with a negative head marker. The set of languages with a negative head marker is a strict subset of the set of NC languages.

Finally, languages with a NegP are always higher than the subject that has been base-generated in Spec,*v*P (cf. Koopman & Sportiche 1991). As universal quantifiers cannot move across negation, sentences in which the negative marker follows an $\forall$-subject will in principle acquire a reading in which negation outscopes the subject. In non-NC languages this phenomenon is also possible, since negation is in principle base-generated in a higher position than the subject. However, if the negative operator is base-generated before merger with the subject (yielding predicate negation) and the subject merges to this negative predicate, the reading $\forall > \neg$ is yielded. As non-NC languages may vary with respect to the preferred interpretation (whereas both are in principle possible) it follows that the set of NC languages is a strict subset of the set of languages, in which constructions where an $\forall$-subject precedes the negative marker can be assigned a reverse interpretation.

To conclude, the theory of sentential negation and Negative Concord that I present in this dissertation provides an explanation for all four phenomena that have been subject to this study; the theory is able to provide solutions for problems that other analyses have been facing; and finally, this theory predicts the typological implications that have surfaced in the empirical research.

A   Abbreviatons

CAPS	Capitals indicate stress
~~Strikethrough~~	Strikethrough indicates deletion under ellipsis
(A)	A is optional
*(A)	A is obligatory
*…	The sentence is ungrammatical
#…	The sentence is infelicitous
%…	The sentence is only grammatical for some speakers of the language/variety
?…	The sentence is marked
??…	The sentence is hardly grammatical
A>B	A scopes over B, A dominates B
<A>…<A>	A can only occur in the first or in the second position
[X]	A feature X
[FF]	A formal feature
[iFF]	An interpretable formal feature
[uFF]	An uninterpretable formal feature
[~~X~~]	The feature X has been deleted
[[X]]	The interpretation of X
¬	Negation
&	Conjunction
∨	Disjunction
→	Implication
1	First person
2	Second person
3	Third person
∀	Universal quantification
∀-subject	A universal quantifier subject
∃	Existential quantification
I	Identity function
Op	Operator
Op¬	Negative operator
AA	Anti-additive
ACC	Accusative
AI	Affective Item
ASP	Aspectual marker
CL	Clitic
CUC	Chain Uniformity Condition
D	Determiner
DE	Downward entailing
DEF	Definite marker
DIC	Defective Intervention Constraint
DN	Double Negation

EN	Emphatic Negation
FA	Funactional application
FOC	Focus
FUT	Future tense marker
IMP	Imperative marker
IND	Indicative marker
LC	Law of Contradiction
LDN	Law of Double Negation
LEM	Law of the Excluded Middle
LF	Logical Form
LOC	Locative marker
N	Noun
Neg	Negative marker
NC	Negative Concord
NOM	Nominative
NPI	Negative Polarity Item
OB	Object
PAST	Past tense marker
PRES	Present tense marker
PERF	Perfect tense marker
PF	Phonological Form
PL	Plural
PM	Predicate modification
PN	Paratactic Negation
PPI	Positive Polarity Item
PRT	Particle
Q	Quantifier
SAND	Syntactic Atlas of Dutch Dialects
SUBJ	Subjunctive marker
SO	Spell-Out
SG	Singular
Spec	Syntactic specifier
SS	Surface Structure
SU	Subject
T	Tense
V	Verb
V_{fin}	Finite verb
WN	Weakening Negation
X°	Syntactic head
XP	Syntactic phrase

B   Bibliography

References

ABELS, K. 2003. *Successive Cyclicity, Anti-locality and Adposition Stranding*. PhD Dissertation, University of Connecticut.

ACKEMA, P., NEELEMAN, A. & WEERMAN, F. 1993. 'Deriving functional projections.' In: **NELS 23**: 17-31.

ALEXANDROVA, G.M. & ARNAUDOVA, O. (EDS.) 2001. *The Minimalist Parameter.* Amsterdam/Philadelphia: John Benjamins.

ANDERSON, J. AND JONES, CH. (EDS.). 1974. *Historical Linguistics: Proceedings of the First International Congress of Historical Linguistics, Edinburgh, September 1973*, Vol. II. Amsterdam.

ANDERWALT, L. 2002. *Negation in Non-Standard British English*. Routledge, London.

ANDERSON, S. & KIPARSKY, P. (EDS.). 1973. *A Festschrift for Morris Halle.* New York: Holt, Rinehart & Winston.

ALONI, M. 2003. 'Free choice in modal contexts.' In: **The Proceedings of Sinn und Bedeutung 7**. Konstanz: Universität Konstanz.

ARISTOTLE. *Rhetoric*. Ed. By F. Solmsen and translated by ROBERTS, W.R. 1954. New York: Modern Library.

BALTIN, M. & C. COLLINS. 2001. *The Handbook of Contemporary Syntactic Theory*. Blackwell.

BAKER, M. 1985. 'The Mirror Principle and morphosyntactic explanation.' In: **Linguistic Inquiry 16**: 373-415.

BARBIERS, S. 1995 *The Syntax of Interpretation*. PhD Dissertation, Universiteit Leiden. The Hague: Holland Academic Graphics.

BARBIERS, S. 2002. 'Microvariation in negation in varieties of Dutch.' In: BARBIERS, CORNIPS & VAN DER KLEIJ 2002: 13-40.

BARBIERS, S., CORNIPS, L. & VAN DER KLEIJ, S. (EDS.) 2002. *Syntactic microvariation*. Meertens Institute Electronic Publications in Linguistics.

BARBIERS, S. & BENNIS, H.J. 2003. 'Reflexives in Dialects of Dutch.' In: KOSTER EN VAN RIEMSDIJK (2003).

BARKER, C. & DOWTY D. 1992. *SALT II*. Ithaca, NY: Cornell Linguistic Circle.

BARTSCH, R., VAN BENTHEM, J. & VAN EMDE BOAS, P. (EDS). 1989. *Semantics and contextual expressions.* Dordrecht: Foris Publications.

BÄUERLE, R., SCHWARZE, C. & VON STECHOW, A. (eds.), *Meaning, Use and Interpretation of Language*. Berlin: De Gruyter.

BEANEY, M. 1997. *The Frege Reader.* Oxford: Blackwell Publishers.

BECKMAN, J. WALSH DICKY, L. & URBANCZYK, S. (eds.) 1995. *Papers in Optimality Theory*. UMOP 18. Amherst, MA: Graduate Linguistic Student Association.

BEGHELLI, F. & STOWELL, T. 1997. 'Distributivity and Negation. The syntax of *each* and *every*'. In SZABOLCSI (1997): 71-107.

BELLETTI, A. & RIZZI, L. 1996 (EDS). *Parameters and Functional Heads. Essays in Comparative Syntax.* Oxford: Oxford University Press.

BENINCÀ, P. & VANELLI, L. 1982. 'Appunti di sinatassi veneta.' In: CORTELAZZO (1982): 7-38.

BOBALJIK, J. & THRÁINSSON, H. 1998. 'Two heads aren't always better than one.' In: **Syntax 1**: 37-71.

BOSQUE, I. 1980. *Sobre la Negación.* Madrid: Cáthedra.

BRODY, M. 1995. *Lexico-logical form: A radically minimalist theory*. Cambridge, MA: MIT Press.

BROEKHUIS, H. & VAN DER WOUDEN, T. (EDS). 2001. *Linguistics in the Netherlands 200*1. Amsterdam: John Benjamins.

BURRIDGE, K. 1993. *Syntactic change in Germanic. Aspects of language change in germanic*. Amsterdam: John Benjamins.

BURZIO, L. 1986. Italian Syntax. Dordrecht: Reidel.

CARDINALETTI, A. & GUASTI, M.-T. (EDS.). 1995. *Small Clauses.* New York: Academic Press.

CARLSON, G. 1980, 'Polarity *any* is existential.' In: **Linguistic Inquiry, *11***: 799-804.

CARNIE, A. & HARLEY, H. (EDS.) 1994. Papers on Phonology and Morphology. MIT Working papers in Linguistics 21.

CHIERCHIA, G. 1995. *Dynamics of Meaning: Anaphora, Presupposition and Syntactic Theory.* Chicago: University of Chicago Press.

CHIERCHIA, G. 2004. *Broaden Your View. Implicatures of Domain Widening*. Ms. University of Milan – Bicocca.

CHOMSKY, N. 1973. 'Conditions on transformations.' In: ANDERSON & KIPARSKY (1973): 232-286.

CHOMSKY, N. 1977. 'On Wh-movement.' In: CULICOVER, WASOW & AKMAJIAN (1977): 71-132.

CHOMSKY, N. 1981. *Lectures on Government & Binding*. Dordrecht: Foris.

CHOMSKY, N. 1986. *Barriers*. Cambridge, MA: The MIT Press.

CHOMSKY, N. 1992. *A minimalist program for linguistic theory*. MIT occasional papers in Linguistics 1.

CHOMSKY, N. 1995. *The minimalist program*. Cambridge, MA: The MIT Press.

CHOMSKY, N. 1998. *Minimalist Inquiries*. Cambridge, MA: The MIT Press.

CHOMSKY, N. 1999. *Derivation by Phase*. Cambridge, MA: The MIT Press.

CHOMSKY, N. 2000. 'Minimalist Inquiries. The Framework.' In: Martin, Michaels & Uriagereka (2000).

CHOMSKY, N. 2001. 'Derivation by Phase.' In: Kenstowicz (2001): 1-52.

CINQUE, G. 1999. *Adverbs and functional heads*. Oxford: Oxford University Press.

COLLINS, C. 2002. 'Eliminating Labels'. In EPSTEIN & SEELY (2002a): 42-64.

COOPER, R. 1975. *Montague's Semantic Theory and Transformational Syntax*. PhD Dissertation, University of Amherst.

COOPER, R. 1979. 'The interpretation of Pronouns.' In: HENY & SCHNELLE (1997): 61-92.

COOPER, R. 1983. *Quantification and Syntactic Theory*. Dordrecht: Reidel.

CORNIPS, L. & JONGENBURGER, W. 2001a. 'Elicitation techniques in a Dutch syntactic dialect atlas.' In: BROEKHUIS & VAN DER WOUDEN (2001): 57-69.

CORNIPS, L. & JONGENBURGER, W. 2001b. 'Het design en de methodologie van het SAND project.' In: **Nederlandse Taalkunde 16**: 215-232.

CORNIPS, L. & POLETTO, C. (TO APPEAR). 'On standardizing syntactic elication techniques.' In: Lingua.

CORTELAZZO, M., (ED.) 1982. *Guida ai dialetti veneti. Vol. 4*. Padua: CLEUP.

COWAN, H.K.J. 1957. De Oudnederlandse (Oudnederfrankische) Psalmenfragmenten. Leiden: E.J. Brill.

CULICOVER, P., WASOW, T. & AKMAJIAN, A. (EDS.). 1977. *Formal Syntax*. New York: Academic Press.

CULICOVER, P. 1981. *Negative Curiosities*. IULC.

DAVIDSON, D. 1967a. 'Truth and Meaning.' In: **Synthese 17.** Repreinted in Davidson (1984).

DAVIDSON, D. 1967b. 'The logical form of action sentences'. In: RESCHER (1967): 81-95.

DAVIDSON, D. 1984. *Inquiries into Truth and Interpretation.* Oxford: Oxford University Press.

DE HAAN, G. & WEERMAN, F. 1984. 'Taaltypologie, taalverandering en mogelijke grammatica's: het Middelnederlandse 'en'.' In: **Tijdschrift voor Nederlandse Taal- en Letterkunde 100**: 161-190.

DE GRAUWE, L. 1982. *De Wachtendockse Psalmen en Glosses. Een lexicologisch-woordgeografische studie met proeve van kritische leestekst en glossaria.* Gent: Secretariaat van de Koninklijke Academie voor Nederlandse Taal- en Letterkunde.

DE SWART, H.E. 1991. *Adverbs of quantification. A Generalised Quantifier approach.* Dissertation Groningen University.

DE SWART, H.E. & SAG, I, A. 2002. 'Negative Concord in France.' In **Linguistics & Philosophy 25**: 373-417.

DEN BESTEN, J.B. 1989. *Studies in West Germanic Syntax*. PhD Dissertation. University of Tilburg.

DÉPREZ, V. 1997a, 'A Non-unified Analysis of Negative Concord'. In: Forget (1997): 53-74.

DÉPREZ, V. 1997b. 'Two Types of Negative Concord.' In: **Probus 9**: 103-142.

DÉPREZ, V. 2000. 'Parallel (A)symmetries and the internal structure of negative expressions.' In: **Natural Language and Linguistic Theory 18**: 253-342.

DIESING, M. 1992. *Indefinites*. Cambridge, MA: MIT Press.

DOBRIN, L.K., NICHOLS, L. & RODRIGUEZ, R.M. (EDS). 1991. *Papers from the 27th Regional Meeting of the Chicago Linguistics Society 1991. Part Two: The Parasession on Negation*. University of Chicago.

DONALDSON, B. 1993. *A Grammar of Afrikaans*. Berlin/New York: Mouton de
     Gruyter.

ECKARDT, R. 2002. 'Semantic Change in Grammaticalisation.' In: KATZ, E.A. (2002):
     53-67.
ELBOURNE, P. 2002. *Situations and individuals*. PhD Dissertation, MIT.
ELFFERS, E. 1995. 'Over de analytische taalkunde.' In: ELFFERS, DE HAAN &
     SCHERMER (1995): 1-29.
ELFFERS, E., DE HAAN, S. & SCHERMER, I. (EDS.) 1995. *Analytische taalkunde*. Ms.
     University of Amsterdam.
EPSTEIN, S.D. 1995. *Un-Principled Syntax and the Derivation of Syntactic Relations*.
     Ms. Harvard University.
EPSTEIN, S.D. & SEELY, D. 2002a. *Derivation and explanation in the minimalist
     program*. Malden, MA: Blackwell.
EPSTEIN, S.D. & SEELY, D. 2002b. 'Rule applications as cycles in a level-free syntax'.
     In EPSTEIN & SEELY (2002a): 65-89.
ERNST, TH. 1992. 'The phrase structure of English negation.' In: **Linguistic Review
     9**: 109-144.
ERNST, TH. 2001. *The syntax of adjuncts.* Cambridge: Cambridge University Press.
EVANS, G. 1977. 'Pronouns, quantifiers, and relative clauses.' In: **Canadian Journal
     of Philosophy 7**: 467-536.

FAUCONNIER, G. 1975. 'Polarity and the scale principle.' In: **Chicago Linguistics
     Society 11**: 188-199.
FAUCONNIER, G. 1979. 'Implication reversal in a natural language.' In: GUENTHER &
     SCHMIDT (1979).
FILLMORE, C. 1963. 'The position of Embedding Transformations in a Grammar.' In:
     Word 19: 208-231.
FODOR, J.A. & KATZ, J.. 1964. *The Structure of Language. Readings in the
     Philosophy of Language*. Englewoods Cliffs, NJ: Prentice-Hall.
FORGET, D., HIRSCHBÜHLER, MARTINEAU, F. & RIVERI, M.-L. (EDS). 1997. *Negation
     and Polarity: Syntax and Semantics*. Current Issues in Linguistic Theory 155.
     Amsterdam/ Philadelphia: John Benjamins.
FOX, D. 2002. 'Antecedent-Contained Deletion and the Copy Theory of Movement.'
     In: **Linguistic Inquiry 33**: 63-96.
FRANCK, J. 1967. *Mittelniederländische Grammatik*. Arnhem: Gysbers & Van Loon.
FREGE, G. 1892. 'Uber Sinn und Bedeutung.' In: **Zeitschrift für Philosophie und
     philosophische Kritik 100**: 25-50. Translated as 'On Sinn and Bedeutung' in:
     Beaney (1997): 151-171.

GIANNAKIDOU, A & QUER, J. 1995. 'Two Mechanisms for the Licensing of Negative
     Indefinites.' In: **Formal Linguistics Society of Mid-America (FLSM) 6**:103-
     114.
GIANNAKIDOU, A. 1997. *The landscape of Polarity Items*. Dissertation Rijksuniversiteit
     Groningen.

GIANNAKIDOU, A. 1999. 'Affective dependencies.' In: **Linguistics & Philosophy 22**: 367-421.

GIANNAKIDOU, A. 2000. 'Negative ... Concord?' In: **Natural Language and Linguistic Theory 18:** 457-523.

GIANNAKIDOU, A. 2001. 'The Meaning of Free Choice.' In: **Linguistics and Philosophy 34**: 659–735.

GIANNAKIDOU, A. 2002. *N-words and Negative Concord?* Ms. University of Chicago.

GIORGI, A. & PIANESI, F. 1997. *Tense and aspect: from semantics to morphosyntax*. Oxford: Oxford University Press.

GIORGI, A. 2004. 'From temporal anchoring to long distance anaphor binding.' Paper presented at the 23rd West Coast Conference in Formal Linguistics. April 23-25, University of California at Davis, Davis CA.

GREENBERG, J.H., FERGUSON, C.A. & MORAVCSIK, E.A. 1978. *Universal of Human Languages. Vol. IV: Syntax*. Stanford, CA: Stanford University Press.

GRINSTEAD, J. 1998. S*ubjects, Sentential Negation and Imperatives in Child Spanish and Catalan*. Doctoral Dissertation, UCLA.

GROENENDIJK, J., JANSSEN, T. & M. STOKHOF, M. (EDS.). 1981. *Formal Methods in the Study of Language*. Amsterdam: Mathematical Centre.

GROENENDIJK, J. & STOKHOF, M. 1990. 'Dynamic Montague Grammar.' In: KALMAN & POLOS (1990): 3-48.

GROENENDIJK, J. & STOKHOF, M. 1991. 'Dynamic Predicate Logic.' In: **Linguistics and Philosophy 14**: 39-100.

GROSS, M., HALLE, M. & SCHÜTZENBERGER, M.-P. (EDS.). 1973. *The formal analysis of natural languages*. The Hague: Mouton.

GUENTER, J.S., KAISER , B.A. & ZOLL, C.C. 1993: *Proceedings of the Nineteenth Annual Meeting of the Berkeley Linguistics Society*. Berkeley: Berkeley Linguistics Society.

GUENTHER, F. & SCHMIDT, S.J. 1979. *Formal semantics and pragmatics for natural languages*. Dordrecht: Reidel.

GUERZONI, E. (TO APPEAR) 'Intervention Effects on NPI's and Feature Movement: Towards a unified account of intervention.' In: **Natural Language Semantics**.

HAEGEMAN, L. 1995. *The syntax of negation*. Cambridge Studies in Linguistics 75. Cambridge: Cambridge University Press.

HAEGEMAN, L. (ED.). 1997. *Elements of grammar: Handbook in generative syntax*. Dordrecht: Kluwer.

HAEGEMAN, L. 2002. 'Some notes on DP-internal negative doubling.' In: BARBIERS, CORNIPS & VAN DER KLEIJ 2002: 152-184.

HAEGEMAN, L. & ZANUTTINI, R. 1991. 'Negative Heads and the Neg-Criterion.' In: **The Linguistic Review 8**: 233-251.

HAEGEMAN, L. & ZANUTTINI, R. 1996. 'Negative Concord in West Flemish.' In: BELLETTI & RIZZI (1996): 117-179.

HASPELMATH, M. 1997. *Indefinite pronouns*. Oxford: oxford Studies in Typology and Linguistic Theory.

HARAIWA, K. 2000. *Agree and closeness in multiple specifiers*. Ms MIT.

HARAIWA, K. 2001. *Multiple Agreement and the Defective Interventione Effect.* Ms MIT.

HARVEY, M. & SANTELMANN, L. (EDS.) 1994. *SALT IV.* Ithaca, NY: Cornell University.

HENDRIKS, H. 1993. *Studied Flexibility. Categories and Types in Syntax and Semantics.* Dissertation, University of Amsterdam.

HENY, F. & SCHNELLE, H. 1997. *Selection from the Third Groningen Round Tables, Syntax and Semantics. Vol. X.* New York: Academic Press.

HEIM, I. 1982. *The Semantics of Definite and Indefinite Noun Phrases.* Ph.D. Dissertation University of Massachusetts, Amherst. Published in 1989 by Garland, New York.

HEIM, I. 1983. 'File Change Semantics and the Familiarity Theory of Definiteness'. In: BÄUERLE, E.A. (1983): 164-189.

HEIM, I. 1990. 'E-Type Pronouns and Donkey Anaphora.' In: **Linguistics and Philosophy 13**:137-177.

HEIM, I. & KRATZER, A. 1998. *Semantics in generative grammar.* Malden, MA., Blackwell Publishers.

HERBURGER, E. 2000. *What Counts: Focus and Quantification.* Linguistic Inquiry Monographs 36. Cambridge, MA: The MIT Press.

HERBURGER, E. 2001. 'The negative concord puzzle revisited.' In: **Natural Language Semantics 9**: 289-333.

HINTIKKA, J. 2002. 'Negation in Logic and Natural language.' In: **Linguistics & Philosophy 25**: 585-600.

HIRSCHBÜLLER, P. & LABELLE, M. 1993. *From ne V pas to ne pas V.* Ms. University of Ottowa/Université du Québec à Montréal.

HIRSCHBÜLLER, P. & LABELLE, M. 1994. 'Changes in verb position in French negative infinitival clauses. In: **Language Variation and Change 6**: 149-178'.

HOEKSEMA, J. 1983. 'Negative Polarity and the comparative.' In: **Natural Language and Linguistic Theory 1**: 403-34.

HOEKSEMA, J. 1997. 'Negation and Negative Concord in Middle Dutch.' In: FORGET, E.A. (1997): 139-156.

HONCOOP, M.F. 1998. *Dynamic Excursions on Weak Islands.* Dissertation Leiden University.

HORN, L. 1978. 'Some aspects of negation.' In: GREENBERG E.A. (1978): 129-210.

HORN, L. 1989. *A natural history of negation.* Chicago: The University of Chicago Press.

HORN, L. 1991. 'Duplex negatio affirmat…: The Economy of Double Negation.' In: DOBRIN E.A. (1991): 80-106.

HORN, L. 2000 '*Any* and *(-)ever*. Free Choice and Free Relatives'. In: WYNER (2002): 71-111.

HORN, L. & KATO, Y. (EDS). 2000. *Negation & Polarity. Syntactic and Semantic Perspectives.* Oxford: Oxford University Press.

HORNSTEIN, N. 1995. *Logical Form, from GB to Minimalism.* Malden, MA: Blackwell Publishers.

HUANG, J.-T. 1982. *Logical Relations in Chinese and the Theory of Grammar*, PhD
          Dissertation, MIT.
HUANG, J.-T. & MAY, R. (EDS.) 1991. *Logical Structure & Linguistic Structure.*
          Dordrecht: Kluwer.

JACKENDOFF, R.S. 1969. 'An Interpretive Theory of Negation.' In: **Foundations of
          Language 5**: 218-241.
JACKENDOFF, R.S. 1972. *Semantic Interpretation in Generative Gramma*r. Cambridge,
          MA: The MIT Press.
JACOBS, J., STECHOW, A. VON, STERNEFELD, W. & VENNEMANN, TH. (Eds). 1993. E*in
          internationales Handbuch zeitgenössischer Forschung.* Vol. 9.1. Berlin: de
          Gruyter.
JACOBSON, P. 1992. 'Antecedent Contained Deletion in a Variable Free Semantics.' In:
          BARKER & DOWTY (1992).
JACOBSON, P. 1999. *Towards a variable-free semantics*. In: **Linguistics &
          Philosophy 22**: 117-184.
JACOBSON, P. 2000. 'Paychecks, stress, and variable-free semantics.' In: **Natural
          Language Semantics 8**: 77-155.
JANSSEN, T.M.V. 1997. 'Compositionality.' With an appendix by B. Partee. In: VAN
          BENTHEM & TER MEULEN (1997): 417-473.
JESPERSEN, O. 1917. *Negation in English and other Languages*. Copenhagen: A.F.
          Høst.

KAHREL, P.J. 1996. *Aspects of Negation*. Dissertation Universiteit van Amsterdam.
KALMAN, L. & POLOS, L. (eds) 1990. *Proceedings of the Second Symposion on Logic
          and Language.* Boedapest: Eotvos Lorand University Press..
KADMON, N. & LANDMAN, F. 1993. 'Any.' In: **Linguistics & Philosophy 16**: 353-
          422.
KAMP, H. 1981. 'A Theory of Truth and Semantic Representation.' In Groenendijk
          e.a. (1981).
KAMP, H., & REYLE, U. 1993. *From Discourse to Logic. Introduction to Model-
          theoretic Semantics of Natural Language, Formal Logic and Discourse
          Representation Theory*. Dordrecht: Kluwer.
KATZ, G., REINHARD, S. & REUTER, PH. (EDS.) 2002. *Sinn und Bedeutung VI.
          Proceedings of the Sixth Annual Meeting of the Gesellschaft für Semantik.*
          Osnabrück: Universität Osnabrück
KANAZAWA, M. & PIÑÓN, C (EDS.) 1994. *Dynamics, polarity, and quantification.*
          Stanford: Center for the Study of Language and Information.
KAYNE, R. 1989. 'Notes on English Agreement.' In: **CIEFL 1**: 40-67.
KAYNE, R. 1992. 'Italian negative imperatives and clitic-climbing.' In: TASMOWSKI-
          DE RYCK & ZRIBI-HERTZ (1992): 300-312.
KAYNE, R. 1994: *The Antysimetry of syntax*. Cambridge, MA: MIT Press.
KAYNE, R. 1998. 'Overt vs. covert movement.' In: **Syntax 1**: 128-191.
KENNEDY, C. 2001. 'Polar Opposition and the Ontology of 'Degrees''. In: **Linguistics
          and Philosophy 24**:33-70.

KEENAN, E. 1974. 'The functional principle: Generalizing the notion "subject of".' In:
        LAGALY (1974).
KEENAN, E. (ed.). 1975. *Formal Semantics of Natural Language*. Cambridge:
        Cambridge University Press.
KEENAN, E. & WESTERSTÅHL, D. 1997. 'Generalised Quantifiers in Linguistics and
        logic.' In: VAN BENTHEM & TER MEULEN (1997): 937-893.
KEMPCHINSKY, P. & CAMPOS, H. (EDS.). 1995. *Evolution and revololution in
        linguistic theory. Essays in honor of Carlos Otero*. Washington, DC:
        Georgetown University Press.
KENSTOWICZ, M. (ED.). 2001. *Ken Hale: a Life in Language*. Cambridge, MA: MIT
        Press.
KERSTENS, J. 1993. *The syntax of number, person and gender. A theory of phi-
        features*. Berlin: Mouton de Gruyter.
KEYES, R.L. 1969. The Old Low Franconian psalms and Glosses. Ann Arbor, MI: The
        University of Michigan Press.
KIPARSKY, C & KIPARSKY, P. 1971. 'Fact.' In STEINBERG & JAKOBOVITZ (1971): 645-
        369.
KLIMA, E. S. 1964. 'Negation in English'. In: FODOR & KATZ (1964).
KOENEMAN, O. 2000. *The flexible nature of verb movement.* Dissertation Utrecht
        University.
KOOPMAN, H. & SPORTICHE, D. 1991. 'The position of subjects.' In: **Lingua 85**: 211-
        258
KOSTER, J. 1974. 'Het werkwoord als spiegelcentrum.' In: **Spectator 3**: 601-618.
KOSTER, J. 2000. *Extraposition as parallel construal*. Ms. University of Groningen.
KOSTER, J. EN VAN RIEMSDIJK, H. (EDS). 2003. Germania et alia. A webschrift for
        Hans den Besten. Available at http://odur.let.rug.nl/~koster/DenBesten/
        Contents.htm.
KREMERS, J. 2003. The Arabic noun phrase. A minimalist approach. PhD
        Dissertation, Katholieke Universiteit Nijmegen.
KRIFKA, M. 1989. Nominal reference, temporal constitution and quantification in
        event semantics. In: BARTSCH E.A. (1989): 75-115.
KRIFKA, M. 1995. 'The Semantics and Pragmatics of Polarity Items.' In: **Linguistic
        Analysis 25**: 209-257.

LA GALY, M., FOX, R. & BRUCK, A., (EDS). 1974, *Papers from the Tenth Regional
        Meeting of the Chicago Linguistic Society.* Chicago: University of Chicago.
LABOV, W. 1966. *The Social Stratification of English in New York City*. Parts I-III.
        Washington, DC: Center for Applied Linguistics.
LADUSAW, W.A. 1980. *The Structure of Intentional Meaning*. Bloomington, IN:
        Indiana University Press.
LADUSAW, W. A., 1979. *Polarity sensitivity as inherent scope relations*. PhD
        Dissertation, University of Texas at Austin. Published in 1980 by Garland
        Press, New York.
LADUSAW, W. A. 1992. 'Expressing negation'. In: BARKER, C. & DOWTY D. (1992).

LADUSAW, W.A. 1993. 'Negation, Indefinites and the Jespersen Cycle.' In: GUENTER, KAISER & ZOLL (1993): 437-446.

LADUSAW, W.A. 1994. 'Thetic and Categorical, Stage and Individual, Weak and Strong.' In: HARVEY & SANTELMANN (1994).

LADUSAW, W. A. 1996. 'Negation and Polarity Items.' In: LAPPIN (1996): 321-341.

LAHIRI, U. & WYNER, A. (EDS). 1993. *SALT III: Proceedings of the third conference on semantics and linguistic theory*. Ithaca, NY: Cornell University Department of Modern Languages and Linguistics.

LANDMAN, F. 2000. *Events and Plurality. The Jerusalem lectures*. Dordrecht: Kluwer Academic Plublishers.

LAKA, I. 1990. *Negation in Syntax: on the Nature of Functional Categories and Projections*. PhD dissertation, MIT.

LAKOFF, R. 1969. 'A Syntactic Argument for Negative Transportation.' In: **CLS 5**: 140-147.

LAPPIN, S. (ED.). 1996 *The Handbook of Contemporary Semantic Theory*. Oxford: Blackwell.

LARSON, R. 1988. 'On the double object construction.' In: **Linguistic Inquiry 19**: 335-391.

LASNIK, H. 1995. 'Verbal morphology: *syntactic structures* meet the minimalist program.' In: KEMPCHINSKY & CAMPOS (1995): 251-275.

LE ROUX, T. & LE ROUX, J. 1945. *Middelnederlandse Grammatica*. Pretoria: Van Schaik.

LEHMANN, W. 1974. *Proto-Indo-European Syntax*. London: Austin.

LEGATE, A.J. 1998. *Verb Phrase Types and the Notion of a Phase*. PhD Dissertation, MIT.

LEGENDRE, G., WILSON C., SMOLESNKY, P., HOMER, K. & RAYMOND, W. 1995. 'Optimality and Wh extraction.' In: BECKMAN E.A. (1995).

LEKAKOU, M. 2003. 'Middles across languages.' Paper presented at *Sinn und Bedeutung 8, the annual meeting of the Gesellschaft für Semantic, Sepember 29 – October 1 2003, Johann Wolfgang Goethe-Universität Frankfurt aM.*

LEWIS, D. 1975. 'Adverbs of quantification.' In: KEENAN (1975): 3-15.

LINDSTRÖM, P. 1966. 'First Order Predicate Logic with Generalised Quantifiers.' In: **Theoria, 32**: 186-195.

LINEBARGER, M. 1987. 'Negative Polarity and Grammatical Representation.' In: **Linguistics and Philosophy 10**: 325–387.

LONGOBARDI, G. 1991. 'Island Effects and Parasitic Constructions.' In: HUANG & MAY (1991): 149-196.

MARTIN, R., MICHAELS, D. & URIAGEREKA, J. (EDS). 2000. *Step by Step*. Cambridge, MA: MIT Press.

MASCAR'O, J. & NESPOR, M. (EDS). 1990. *Grammar in Progress*. Dordrecht: Foris.

MATUSHANSKY, O. 2002. *DP's and Phases.* Ms CNRS/Université Paris-8.

MAY, R. 1977. 'The Grammar of Quantification.' PhD Dissertation, MIT.

MAY, R. 1985. *Logical Form*. Cambridge, MA: MIT Press.

MERCHANT, J. 2001. *Why no(t)*. Ms. University of Chicago.

MONTAGUE, R. 1970. 'English as a Formal Language.' In: THOMASON (1974): 188-221.

MONTAGUE, R. 1973. 'On the Proper Treatment of Quantification in Ordinary English.' In: THOMASON (1974): 247-270.

MÜLLER, G. 2004. 'Verb-second as vP-first.' In: **Journal of Comparative Germanic Linguistics 7**: 179-234.

MÜLLER, R. & REISS, M. (EDS.) 2001. *Modalität und Modalverben im Deutschen.* Linguistische Berichte, Sonderheft 9.

MULLER, C. 1991. *La negation en français: syntaxe, sémantique et elements de comparaisons avec les autres langues romanes.* Geneva: Droz.

NEELEMAN, A. & VAN DE KOOT, H. 2002. 'The Configurational Matrix.' In: **Linguistic Inquiry 33**: 529-574.

NILSEN, Ø. 2003. *Eliminating positions: syntax and semantics of sentential modification.* PhD Disseration. Universiteit Utrecht.

OUHALLA, J. 1991. *Functional categories and parametric variation.* London/New York: Routledge.

PAYNE, J.R. 1985. 'Negation.' In: SHOPEN (1985): 197-242.

PARSONS, T. 1990. *Events in the Semantics of English.* Cambridge, MA: MIT University Press.

PARTEE, B. 1970. 'Negation, Conjunction and Quantifiers: Syntax vs. Semantics.' In: **Foundations of language 6**: 153-165.

PARTEE, B. 1984. 'Nominal and Temporal Anaphora.' In: **Linguistics & Philosophy 7:** 243-286.

PARTEE, B. & BORSCHEV, V. 2002. 'Genitive of negation and scope of negation in Russian existential sentences.' In TOMAN (2002).

PENKA, D. & VON STECHOW, A. 2001. 'Negative Indefinita unter Modalverben.' In: MÜLLER & REISS (2001).

PESETSKY, D. AND TORREGO, E. (2001). T-to-C movement: causes and consequences. In: KENSTOWICZ (2001): 355-426.

PINTZUK, S., TSOULAS, G. & WARNER, A. (EDS). 2000. *Diachronic Syntax: Models and Mechanisms.* Oxford: Oxford University Press.

POLETTO, C. 2000. *The Higher Functional Field in the Northern Italian Dialects.* Oxford University Press, New York, Oxford.

POLETTO, C. & POLLOCK, J.-Y. 2001. *On the left periphery of Romance interrogatives.* Ms. Universities of Amiens and Padua.

POLLOCK, J.-Y. 1993. *Notes on Clause Structure.* Ms. Université de Picardie, Amiens.

POLLOCK, J.-Y. 1989. 'Verb Movement, Universal Grammar, and the Structure of IP.' In: **Linguistic Inquiry 20**, 365-424.

PORTNER, P. & ZANUTTINI, R. 2000. 'The Force of Negation in Wh Exclamatives and Interrogatives.' In: Horn & Kato (2000): 201-239.

POSTMA, G.J. 2002. 'De enkelvoudige clitische negatie in het Middelnederlands en de Jespersen-cyclus.' In: **Nederlandse Taalkunde 7:** 44-82.

Potsdam, C. 1997. 'NegP and Subjunctive Complements in English.' In: **Linguistic Inquiry 28**: 533-541.

Progovac, L. 1993. 'Negative Polarity: Entailment and Binding.' In: **Linguistics & Philosophy 16**: 149-180.

Pustejovsky, J. 1989. 'Current Issues in Computational Lexical Semantics.' In: *Proceedings of the European Association for Computational Linguistics 1989*:17-25.

Pylkkänen, L. 2002. *Introducing Arguments*. Dissertation. MIT.

Quak, A. 1981. Die altmittel- und altniederfränkischen Psalmen und Glossen. Amsterdam: Rodopi.

Ramchand, G. 2002. *Two Types of Negation in Bengali.* Ms. Oxford University.

Reinhart, T. 1995. *Interface strategies*. Utrecht: OTS Working Papers in Linguistics.

Reinhart, T. 1997. 'Quantifier scope: How labor is divided between QR and choice functions' In: **Linguistics and Philosophy 20**: 335-397.

Rescher, N. (ed.) 1967. *The logic of decision and action*. Pittsburgh: The University of Pittsburgh Press.

Rivero, M.L 1994. 'Negation, imperatives and Wackernagel effects.' In: **Rivista di Linguistica 6**.

Rivero, M.L. & Terzi, A. 1995. 'Imperatives, V-movement, and Logical Mood.' In: **Journal of linguistics 31**: 301-332.

Rizzi, L. 1982. *Issues in Italian Syntax*. Dordrecht: Foris.

Rizzi, L. 1989. *Relativised Minimality*. Cambridge, MA: The MIT Press.

Rizzi, L. 1990. 'Speculations on verb second.' In: Mascar'o & Nespor (1990): 375-386.

Rizzi, L. 1991. *Residual Verb Second and the Wh-Criterion*. Technical Reports in Formal and Computational Linguistics 2. Geneva: University of Geneva. Reprinted as Rizzi, L. 1996.

Rizzi, L. 1996. 'Residual Verb Second and the Wh-Criterion.' In: Belletti & Rizzi (1996): 63-90.

Rizzi, L. 1997. 'The fine structure of the left periphery.' In: Haegeman (1997): 281-337.

Roberts, I. 2000. 'Some Remarks on the Diachrony of Fench Negation.' In: **D.E.L.T.A. 16**: 201-219.

Roberts, I. & Roussou, A. 2003. *Syntactic Change. A Minimalist Approach to Grammaticalisation*. Cambridge: Cambridge University Press.

Ross, J.R. 1973. 'Slifting.' In: Gross, Halle & Schützenberger (1973): 133-169.

Ross, J. 1983. *Inner islands*. Ms. MIT.

Rothstein, S. 1995. 'Small clauses and copular constructions.' In: Cardinaletti & Guasti (1995): 27-48.

Rowlett, P. 1998. *Sentential Negation in French*. New York/Oxford: Oxford University Press.

Sag, I. 1980. *Deletion and Logical Form.* Dissertation MIT. New York: Garland.

SCHÜRCKS, L. 2003. BINDING AND BULGARIAN. PhD Dissertation. Groningen University.

SCHÜTZE, C.T. 1994. 'Serbo-Croatian Second Position Clitic Placement and the Phonology-Syntax Interface.' In: CARNIE & HARLEY (1994): 373-473.

SCHWEIKERT, W. 2004. *The syntax of modifiers*. PhD Disseration, Ca'Fescaro University Venice.

SEUREN, P. 1969 *Operators and Nucleus*. Cambridge: Cambridge University Press.

SEUREN, P. 1976. 'Echo: een studie in negatie.' In: KOEFOED & EVERS (1976): 160-184.

SHOPEN, T. (ed.), *Language typology and syntactic description. Vol. I: Clause structure*, Cambridge: Cambridge University Press.

STARKE, M. (2001). Move Dissolves into Merge: a Theory of Locality. Dissertation University of Geneva.

STEINBERG, D. & JAKOBOVITZ, L. (EDS.) 1971. *Semantics: an Interdisciplinary Reader*. Cambridge: Cambridge University Press.

STECHOW, A. VON. 1984. 'Comparing Semantic Theories of Comparison.' In: **Journal of Semantics 3**:1-77.

STECHOW, A. VON. 1993. 'Die Aufgaben der Syntax.' In: JACOBS, VON STECHOW, STERNEFELD & VENNEMANN (1993): 1-88.

STECHOW, A. VON. 2004. *Schritte zur Satzsemantik*. Ms. Universität Tübingen.

SURANYI, B. TO APPEAR. 'Quantification and Focus in Negative Concord.' In: **Lingua**.

SVENONIUS, P. (ED.) 2001a. *Subjects, expletives, and the EPP*. Oxford/New York: Oxford University Press.

SVENONIUS, P. 2001b. 'Subject positions and the placement of adverbials.' In: SVENONIUS (2000a): 199-240.

SZABOLCSI, A. (ED.) 1997. *Ways of scope taking*. Dordrecht: Kluwer Academic Publishers.

SZABOLCSI, A. 2001. 'The syntax of scope'. In: BALTIN. & COLLINS (2001): 607-633.

SZABOLCSI, A. & ZWARTS, F. 1993. 'Weak islands and an algebraic semantics for scope taking.' In: **Natural language semantics 1**: 238-284. Reprinted in SZABOLCSI (1997).

TARSKI, A.1935. 'Der wahrheitsbegriff in den formalisierten sprachen.' In: **Studia Philosophica 1**: 261-405. English translation in: TARKSI (1956).

TARSKI, A. 1956. *Logic, semantics, Metamathematics*. Oxford: Oxford University Press.

TASMOWSKI-DE RYCK, L. & ZRIBI-HERTZ, A. (EDS.) 1992. *Hommages à Nicolas Ruwet*. Gent.

TEODORESCU, A. 2004. 'Romanian n-words and the finite/non-finite distinction.' Paper presented at *Georgetown University Round Table: Comparative and Cross-linguistic Research in Syntax, Semantics and Computational Linguistics*. March 26-29, 2004. Georgetown University, Washington DC.

THOMASON, R. H. (ED.). 1974. *Formal Philosophy: Selected Papers of Richard Montague*. New Haven: Yale University Press.

T<small>IEKEN</small>-B<small>OON VAN</small> O<small>STADE</small>, I., T<small>OTTIE</small>, G. & V<small>AN DEN</small> W<small>URFF</small>, W. (<small>EDS</small>). 1999. *Negation in the history of English.* Berlin: Mouton de Gruyter.

T<small>OMAN</small>, J. (E<small>D</small>.). 2002. *Formal Approaches to Slavic Linguistics: The Ann Arbor Meeting 2001* (*FASL* 10). Ann Arbor: Michigan Slavic Publications.

T<small>OMIC</small>, O. 1999. 'Negation and imperatives.' In: **Catalan Working papers in Linguistics 7**: 191-206.

T<small>OYOSHIMA</small>, T. 2001. 'Head-to-Spec Movement.' In A<small>LEXANDROVA</small> & A<small>RNAUDOVA</small> (2001): 115-136.

T<small>RAVIS</small>, L. 1984. *Parameters and Effects of Word Order Variation.* Dissertation, MIT.

U<small>RA</small>, H. (1996). *Multiple Feature Checking*. Dissertation MIT.

V<small>AN</small> B<small>ENTHEM</small>, J. & T<small>ER</small> M<small>EULEN</small>, A. (<small>EDS</small>.) 1997. Handbook for Logic and Language. Amsterdam: Elsevier; Cambridge, MA: The MIT Press.

V<small>AN</small> C<small>RAENENBROECK</small>, J. 2004. *Ellipsis in Dutch dialects*. PhD Dissertation. Leyden University.

V<small>AN DER</small> H<small>ORST</small>, J. & V<small>AN DER</small> W<small>AL</small>, M. 1979. 'Negatieverschijnselen en woordvolgorde in de geschiedenis van het Nederlands.' In: **Tijdschrift voor Nederlandse Taal- en Letterkunde 95**: 6-37.

V<small>AN DER</small> S<small>ANDT</small>, R. 1989. *Context and Presupposition*. London: Croom Helm.

V<small>AN DER</small> W<small>OUDEN</small>, T. 1994a. *Negative Contexts*. Diss. Rijksuniversiteit Groningen.

V<small>AN DER</small> W<small>OUDEN</small>, T. 1994b. 'Polarity and 'Illogical Negation'.' In: K<small>AWAZANA</small> & P<small>IÑÓN</small> (1994): 17-45.

V<small>AN DER</small> W<small>OUDEN</small>, T. 1995. *Taalverandering in close-up: over de ontwikkeling in de ontkenning bij Vondel.* Ms. University of Groningen.

V<small>AN DER</small> W<small>OUDEN</small>, T. & F. Z<small>WARTS</small>. 1993. 'A semantic analysis of negative concord.' In L<small>AHIRI</small> & W<small>YNER</small> (1993): 202-219.

V<small>AN</small> H<small>ELTEN</small>, W.L. 1883. *Vondel's taal. Grammatica van het Nederlands der zeventiende eeuw. Syntaxis.* Groningen: J.B. Wolters.

V<small>AN</small> H<small>ELTEN</small>, W.L. 1902. die Altostniederfránkischen Psalmenfragmente, die Lipsius'schen Glossen. Wiesbaden: M. Sändig oHG. Republished in 1971.

V<small>AN</small> K<small>EMENADE</small>, A. 1999. 'Sentential negation and clause structure in Old and Middle English.' In: T<small>IEKEN</small>-B<small>OON VAN</small> O<small>STADE</small>, E.A. (1999): 147-165.

V<small>AN</small> K<small>EMENADE</small>, A. 2000a. 'Jespersen's Cycle Revisisted.' In: P<small>INTZUK</small>, E.A. (2000): 51-74.

V<small>AN</small> K<small>EMENADE</small>, A. 2000b. *Ontkenning ontkend.* Inaugurele rede, Katholieke Universiteit Nijmegen.

V<small>AN</small> R<small>OOY</small>, R. 2003. 'Negative Polarity Items in Question: Strength as Relevance.' In: **Journal of Semantics 20**: 239-273.

V<small>ANACKER</small>, 1975. 'Substantiefgroepen met dubbele ontkenning in zuidwestelijke dialecten.' In: **Taal & Tongval 17**: 41-50.

V<small>ASISHTH</small>, S. 1999. 'Surface Structure Constraints on Negative Polarity and Word Order in Hindi and English.' Paper presented at *the 11th European Summerschool in*

Logic, Language and Information (ESSLI'99), August 1999, Utrech, at the *workshop on Research Logics and minimal Grammars.*
VENNEMANN, TH. 1974. 'Topics, subjects, and word order: From SXV to SVX via TVX.' In: ANDERSON & JONES (1974): 339-376.

WEISS, H. 2002. Three types of negation: a case study in Bavarian. In: BARBIERS, & CORNIPS &. VAN DER KLEIJ (2002): 305-332.
WINTER, Y. 1997. 'Choice Functions and the Scopal Semantics of Indefinites.' In: **Linguistics and Philosophy 20**: 399-467.
WILLIAMS, E. 1986. 'A Reassignment of the Functions of LF.' In: **Linguistic Inquiry 17**: 265 – 299.
WILLIAMS, E. 1988. 'Is LF Distinct from S-Structure? A Reply to May.' In**: Linguistic Inquiry 19:** 135 - 146.
WYNER, A.Z. 2002 (EDS.): 'The Proceedings of the 15th Annual Conference of the Israeli Association for Theoretical Linguistics'.

YAEGER-DROR, M. & HALL-LEW, L. 2002. 'Presidential Use of Negation.' In: **Texax Linguistic Forum 45**: 187-194.

ZANUTTINI, R. 1991. *Syntactic Properties of Sentential Negation.* PhD Dissertation, University of Pennsylvania.
ZANUTTINI, R. 1994. 'Speculations on negative imperatives.' In: **Rivista di linguistica 6**: 119-142.
ZANUTTINI, R. 1996. 'On the Relevance of Tense for Sentential Negation.' In: BELLETTI, A. & RIZZI, L. (1996): 181-207.
ZANUTTINI, R. 1998. *Negation and clausal structure. A Comparative Study of Romance languages*. Oxford studies in comparative syntax. New York, Oxford: Oxford University Press.
ZANUTTINI, R. 2001. 'Sentential Negation.' In: BALTIN & COLLINS (2001): 511-535.
ZEIJLSTRA, H.H. 2002. 'What the Dutch Jespersen Cycle may reveal about Negative Concord.' In: **Linguistics in Potsdam 19**: 183-206.
ZEIJLSTRA, H.H. 2004a. 'Syntactic vs. Semantic Negation.' In: **Proceedings of Sinn und Bedeutung 8**.
ZEIJLSTRA, H.H. 2004b. 'Two Ways of Expressing Negation.' In: **Proceedings of ConSOLE 12**.
ZEIJLSTRA, H.H. 2004c. 'Why formal features are a result of L1 acquisition.' Paper presented at the *Bilbao/Deusto Student Conference in Linguistics.* July 8-10, Deusto University Bilbao.
ZWART, C.J.W. 2004. *Local Agreement.* Ms. University of Groningen.
ZWARTS, F. 1986 *Categoriale Grammatica en algebraïsche semantiek. Een studie naar negatie en polariteit in het nederlands*. PhD Dissertation, Groningen University.
ZWARTS, F. 1995 'Non-veridical contexts.' In: **Linguistic Analysis 25**: 286-312.

Historical sources

Ælfric Lives of Saints – JOHNSON, J.A. (ED.). 1975. *A transformational analysis of the syntax of Ælfric's Lives of Saints.* The Hague: Mouton.

Alexanders geesten – FRANCK, J. (ED.). 1882. *Alexanders geesten, van Jacob van Maerlant*. Groningen. Included in: *CD-ROM Middelnederlands*.

Antwerps Liedboek – HOFFMANN VON FALLERSLEBEN, H. (Ed.): 1855. *Antwerpener Liederbuch vom Jahre 1544. Nach dem einzigen noch vorhandenen Exemplare herausgegeben.* Included in: *CD-ROM Middelnederlands*.

Banket-werk van goede gedachten – De Brune, J. 1654: *Banket-werk van goede gedachten.* Middelburg: Jaques Fierens. Reprinted Leiden (2004): Maatschappij der Nederlandse Letterkunde.

Beowulf – HEANEY, S. (ED.). 1999. *Beowulf.* London: Faber and Faber.

Borgravinne van Couchi – TERSTEEG, J. (ED.). 1987. *Borgravinne van Couchi.* Included in: *CD-ROM Middelnederlands*.

Brabantsche yeesten – BORMANS, J.H. (ED.). 1869. *De Brabantsche yeesten, of Rijmkronijk van Braband, zevende boek*. Brussel. Included in: *CD-ROM Middelnederlands*.

Canterbury Tales – WETHERBEE, W. 2004. (ED). *Geoffrey Chausser, The Canterbury Tales.* Cambridge: Cambridge University Press.

CD-ROM Middelnederlands – VAN OOSTROM (ED.). 1998. *CD-ROM Middelnederlands.* Den Haag: SDU.

De reis van Sente Brandane – OSKAMP, H.P.A. (ED.). 1971. *De reis van Sente Brandane*. Zutphen.

Der nature bloeme – VERWIJS. E. (ED.) 1980. J*acob van Maerlant's Naturen bloem*e. Amsterdam: Gijsbers & Van Loon.

Die x. plaghe en die x. ghebode. – SNELLAERT, F.A. (Ed.). 1869. *Nederlandsche gedichten uit de veertiende eeuw van Jan van Boendale, Hein van Aken en anderen. Naar het Oxfordsche handschrift uitgegeven.* Brussel. Included in: *CD-ROM Middelnederlands*.

Ferguut – KUIPER, W. (ED.) 1989. *Die riddere metten witten scilde. Oorsprong, overlevering en auteurschap van de Middelnederlandse Ferguut, gevolgd door een diplomatische editie en een diplomatisch glossarium*. Dissertation University of Amsterdam, 309-419. Included in: *CD-ROM Middelnederlands*.

Grimbergsche oorlog – BLOMMAERT, PH & SERRURE, C.PH. (EDS). 1852-1854. *De Grimbergsche oorlog. Ridderdicht uit de XIVe eeuw.* Gent: Maetschappy der Vlaemsche Bibliophilen. Included in: *CD-ROM Middelnederlands*.

Gruuthuse – CARTON, CH.L. (ED.). 1848. *Oudvlaemsche liederen en andere gedichten der XIVe en XVe eeuwen.* Gent: Maetschappy der Vlaemsche Bibliophilen. Included in: *CD-ROM Middelnederlands*.

Gysbreght – SMITS-VELDT, M.B. (ED.). 1994. *Joost van den Vondel, Gysbreght van Aemstel*. Amsterdam: Amsterdam University Press. Available at: Digitale Bibliotheek voor de Nederlandse Letteren.

Het prieelken der gheestelyker wellusten – HERMANCE VAN BELLE, (ED.). 1927. *Katherina Boudewyns, Het prieelken der gheestelyker wellusten*. Antwerpen: De Sikkel. Available at: Digitale Bibliotheek voor de Nederlandse Letteren.

Hierusalem verwoes. – STERCK J.F.M., MOLLER, H.W.E., DE KLERK, C.R., MOLKENBOER, B.H., PRINSEN J. & SIMONS, L. (EDS). 1929. *De werken van Vondel. Tweede deel 1620-1627*. Amsterdam: De Maatschappij voor goede en goedkoope lectuur. Available at: Digitale Bibliotheek voor de Nederlandse Letteren.

Hippolytus – Van den Vondel, J. 1628. *Hippolytus*. Amsterdam: Boom, J.H.. Amsterdam. Available at: Digitale Bibliotheek voor de Nederlandse Letteren.

Katholiek spotgedicht op Oranje en zijn godsdienstvrede. – Van Vloten, J. (Ed.). 1847. *Nederlandsche geschiedzangen, II.Politieke Balladen, Refereinen, Liederen, en Spotgedichten der 16e eeuw*, Gent: Maetsch. der Vlaemsche Bibliophilen. Available at: Digitale Bibliotheek voor de Nederlandse Letteren.

Lanceloet – Jonckbloet, W.J.A. (Ed.).1846-1849. *Roman van Lancelot, (XIIIe eeuw). Naar het (eenig-bekende) handschrift der Koninklijke Bibliotheek, op gezag van het gouvernement uitgegeven*. 's-Gravenhage. Included in: *CD-ROM Middelnederlands*.

Maria Stuart – STERCK, J.F.M., MOLLER, H.W.E., DE VOOYS, C.G.N., DE KLERK, C.R., MOLKENBOER, B.H., PRINSEN J., SIMONS, L., VAN DE GRAFT, C.C., MICHELS, L.C. & VERDENIUS, A.A. (EDS). 1931. *De werken van Vondel. Vijfde deel 1645-1656*. Amsterdam: De Maatschappij voor goede en goedkoope lectuur. Available at: Digitale Bibliotheek voor de Nederlandse Letteren.

Merlijn – VAN VLOTEN, J. (ED.). 1880. *Jacob van Maerlant: Merlijn. Naar het enig bekende Steinforter handschrift uitgegeven*. Leiden. Included in: *CD-ROM Middelnederlands*.

Mowntayne - NICHOLS, J.G. (ED.). 1859. *The autobiography of Thomas Mowntayne. Narratives of the days of the reformation, chiefly from the manuscripts of John Foxe the martyrologist; with two contemporary biographies of Archbishop Cranmer*. London: Camden Society. Reprinted: New York and London: AMS Press.

Potter, Den Minnen Loep – P. Leendertz, Wz. (ed.): *Der Minnen Loep door Dirc Potter*. 2 dln. Leiden, 1845-1846. Included in: *CD-ROM Middelnederlands*.

Refreynen int sot amoureus wijs – KRUYSKAMP, C. (ED.) 1940. *Jan van Doesborch, Refreynen int sot amoureus wijs*. E.J. Brill, Leiden 1940. Available at: Digitale Bibliotheek voor de Nederlandse Letteren.

Reinaarde – TINBERGEN, D.C. & VAN DIS, L.M. (EDS) 1966. *Van den Vos Reinaarde*. Groningen.

Spiegel Historiael – DE VRIES, M. & VERWIJS, E. (EDS).1863. *Jacob van Maerlant's Spiegel historiael, met de fragmenten der later toegevoegde gedeelten, bewerkt door Philip Utenbroeke en Lodewijc van Veltham*. Leiden. Included in: *CD-ROM Middelnederlands*.

Van sinte Niemant – *Van sinte Niemant, ende van zijn, wonderlijc leven, groote macht ende heerlijckheyt*. In: G. KALFF (ED.) 1977. *Veelderhande geneuchlijcke*

dichten, tafelspelen ende refereynen. Utyrecht: HES Publishers. Available at: Digitale Bibliotheek voor de Nederlandse Letteren.

Vanden levene ons heren – W.H. BEUKEN, W.H. (ED.). 1968. *Vanden levene ons heren*. Zwolle, 1968. Included in: *CD-ROM Middelnederlands*.

*Vices and Virtue*s – NELSON FRANCES, W. (ED.). 1968. *The book of vices and virtues. A fourteenth century English translation of the Somme le Roi of Lorens d'Orléans.* London: Oxford University press.

Vierde Martijn – HEGMAN, W.E. (ED.). 1958. *Hein van Aken: Vierde Martijn*. Zwolle: Maatschappij der Nederlandse letterkunde te Leiden. Included in: *CD-ROM Middelnederlands*.

Wachtendonck Psalms – DE GRAUWE, L. (ED.). 1982. *De Wachtendockse Psalmen en Glosses. Een lexicologisch-woordgeografische studie met proeve van kritische leestekst en glossaria.* Gent: Secretariaat van de Koninklijke Academie voor Nederlandse Taal- en Letterkunde.

Warenar – KEERSMAEKERS, A. (ED.). 1987. *P.C. Hooft, Warenar*. Amsterdam: DNB/Uitgeverij Pelckmans Kapellen / Uitgeverij Wereldbibliotheek. Available at: Digitale Bibliotheek voor de Nederlandse Letteren.

C   Curriculum Vitae

Hedzer Hugo (Hedde) Zeijlstra werd geboren op 30 augustus 1975 in Rotterdam. Na zijn eindexamen aan het Utrechts Stedelijk Gymnasium studeerde hij enige tijd wis- en natuurkunde aan de Universiteit Utrecht. Vanaf 1997 studeerde hij aan deze universiteit Nederlandse Taal- en Letterkunde en in 1999 studeerde hij af met als specialisatie Taal en Taalstructuur. Daarna nam hij deel aan het Advanced Masters Programme van het Holland Institute of generative Linguistics (HIL).

Van 2000 tot 2004 was hij werkzaam als Assistent in Opleiding (AiO) aan de Universiteit van Amsterdam bij het Amsterdam Center for Language and Communication (ACLC). Het onderzoek, waar dit proefschrift het resultaat van vormt, werd uitgevoerd binnen het kader van de Syntactische Atlas van de Nederlandse Dialecten (SAND). Daarnaast was hij als gaststudent verbonden aan het Institute for Logic, Language and Computation (ILLC). In 2003 verbleef hij als *visiting student* drie maanden aan het Linguistic Department van New York University (NYU) en voor kortere tijd aan de Ca'Foscari universiteit in Venetië.

Naast zijn AiO-schap heeft Hedde Zeijlstra aan diverse instellingen, waaronder de Vrije Universiteit Amsterdam, cursussen Nederlands voor anderstaligen verzorgd.

Momenteel is hij aangesteld als wetenschappelijk medewerker aan de Eberhard Karls Universität Tübingen bij het Sondersforschungsbereich SFB 441, Linguistic Datastructures.

D   Dutch Summary (Nederlandse samenvatting)

In dit proefschrift bespreek ik vier verschijnselen op het gebied van negatie. Deze verschijnselen zijn: (*i*) de wijze waarop zinsnegatie in een taal wordt uitgedrukt; (*ii*) de interpretatie van meervoudig negatieve uitdrukkingen; (*iii*) de grammaticaliteit van negatieve imperatieven; en (*iv*) de interpretatie van zinnen waarbij een subject dat bestaat uit een universele kwantor aan een negatieve markeerder vooraf gaat.

In hoofdstuk 2 geef ik een schets van de theoretische achtergronden van de generatieve syntaxis, de formele semantiek en de studie naar de *syntax-semantics interface*. Ik beschrijf kort de essentiële gedachten achter het minimalistisch onderzoeksprogramma binnen de generatieve grammatica (Chomksy 1995, 2001) en bespreek de belangrijkste operaties *Merge*, *Move* en *Agree*. Daarnaast ga ik in op de noties van *feature checking* en *lokaliteit*.
Eveneens geef ik een beknopt overzicht van de grondslagen van de waarheidsvoorwaardelijke semantiek en bespreek ik compositionaliteit van betekenis. Dat laatste houdt in dat de betekenis van een zin te herleiden valt uit de betekenis van de zinsdelen en hoe de zin is opgebouwd uit deze delen.
Tenslotte bespreek ik enkele achtergronden met betrekking tot de syntax-semantics interface. De centrale vraagselling in dit deelgebied van de theoretische taalkunde is waar zich de grens tussen syntaxis en semantiek bevindt: worden zinnen op oppervlakteniveau geïnterpreteerd of biedt de syntaxis nog de mogelijkheid om na *Spell-Out* transformaties uit te voeren die een Logische Vorm (LF) opleveren die vervolgens de invoer vormt voor het semantisch proces. In dit hoofdstuk poneer ik de stelling dat de bestudeerde verschijnselen op het gebied van negatie in ieder geval geen argumenten bieden om het laatste te veronderstellen.

In hoofdstuk drie leid ik de vier verschijnselen op het gebied van negatie in en verschaf ik waar noodzakelijk werkdefinities.
Het eerste verschijnsel, de wijze waarop natuurlijke talen zinsnegatie uitdrukken, vertoont zowel synchrone als diachrone variatie. Sommige talen drukken zinsnegatie uit door middel van een negatieve markeerder die links van het werkwoord staat (zoals het Italiaans). Ook zijn er talen die naast deze preverbale negatieve markeerder een optioneel negatief adverbium tot hun beschikking hebben, zoals het Catalaans. Deze constructie, waarbij negatie door middel van een preverbale negatieve markeerder en een negatief adverbium wordt uitgedrukt, is zelfs verplicht in het (formele) Frans. In het Westvlaams daarentegen wordt negatie altijd door middel van een negatief adverbium uitgedrukt, maar is een preverbaal negatief element nog steeds beschikbaar. In talen zoals het Duits wordt zinsnegatie uitsluitend door een negatief adverbium uitgedrukt. Voorbeelden staan in (1).

(1)   a.   Gianni *non* ha telefonato   Italiaans
             Gianni neg heeft gebeld
             'Gianni heeft niet gebeld'

    b. *No* sera (*pas*) facil   Catalaans
        Neg zal.zijn neg gemakkelijk
        'Het zal niet gemakkelijk zijn'
    c. Jean *ne* mange *pas*   Standaard Frans
        Jean neg eet neg
        'Jean eet niet'
    d. Valère (*en*) klaapt *nie*   Westvlaams
        Valère neg praat neg
        'Valère praat niet'
    e. Hans kommt *nicht*   Duits
        Hans komt neg
        'Hans komt niet'

Talen veranderen in de loop der tijd met betrekking tot de uitdrukkig van zinsnegatie. Een goed voorbeeld hiervan is de ontwikkeling die het Nederlands heeft doorgemaakt (2). Waar de laatste resten van het Oudnederlands (9[e] eeuws) suggereren dat uitsluitend een preverbaal negatief element dienst deed als ontkennend element, vertoont de Middelnederlandse ontkenning een hoge mate van overeenkomst met het hedendaagse formele Frans, terwijl de negatie in het moderne Nederlands vrijwel identiek is aan die in het Duits.

(2)   a. Inde in uuege sundigero *ne* stûnt[278]   Oudnederlands
        En in weg zondaars neg stonden
        'En stonden in de weg van de zondaars'
    b. Dat si *niet en* sach dat si sochte[279]   Middelnederlands
        Dat zij neg neg zag wat zij zocht
        'Dat zij niet zag wat zij zocht'
    c. Jan loopt *niet*   Modern Nederlands

De ontdekking dat talen gedurende de loop der tijd variëren in de manier waarop zinsnegatie wordt uitgedrukt is afkomstig van Jespersen (1917). Het cyclische verloop van de uitdrukking van zinsnegatie staat daarom ook bekend als *De Jespersen Cyclus*. De variatie die talen ten toon spreiden ten aanzien van de uitdrukking van zinsnegatie levert de volgende onderzoeksvraag op: op welke manieren is de syntaxis in staat om zinsnegatie uit te drukken en hoe moet dit beperkte scala aan mogelijkheden worden verklaard.

Het tweede verschijnsel dat ik in dit proefschrift onderzoek is de interpretatie van zinnen met meer dan één negatieve uitdrukking. De Nederlandse zin in (3)a heeft een interpretatie als in (3)b: de twee negaties heffen elkaar op. Dit is echter niet het geval bij de Italiaanse tegenhanger van deze zin. De zin in (4)a heeft een interpretatie als in (4)b, waarbij de twee negatieve elementen lijken te zijn samengesmolten tot een semantische negatie.

---

[278] Wachtendockse psalmen 63:5.
[279] Lanceloet 20042.

(3) a. Jan heeft *niet niemand* gebeld   Nederlands
    b. Jan heeft iemand gebeld

(4) a. Gianni *non* ha telefonato a *nessuno*   Italiaans
       Gianni neg heeft gebeld naar n-iemand
    b. Gianni heeft naar *niemand* gebeld

Dit verschijnsel, dat zich niet alleen voordoet in het Italiaans maar in de overgrote meerderheid der talen, heet *Negative Concord*. Negative Concord (NC) laat zich onderverdelen in twee subcategorieën: Strict Negative Concord en Non-Strict Negative Concord. De onderverdeling tussen Strict en Non-Strict NC spitst zich toe op de vraag of een negatief subject in preverbale positie gevolgd wordt door een negatieve markeerder. In Strict NC talen (bijvoorbeeld het Russisch) is dit verplicht (5), in Non-Strict NC talen, zoals het Portugees, is dit verboden (6).

(5) *Nichego* *(*ne*) rabotaet   Russisch
    N-iets neg werkt
    'Niets werkt'

(6) *Ninguém* (*não) veio   Portugees
    N-iemand neg kwam
    'Niemand kwam'

NC vormt een uitdaging voor de compositionaliteit van betekenis. De onderzoeksvraag is daarom: hoe is het mogelijk dat twee negatieve elementen elkaar niet opheffen, maar gezamenlijk één semantische negatie vormen.

Het derde verschijnsel dat ik heb onderzocht behelst negatieve imperatieven. In een aantal talen mag de imperatieve vorm van een werkwoord niet in combinatie met een negatieve markeerder voorkomen. Een voorbeeld van zo'n taal is het Spaans, waarbij de betekenis van een negatieve imperatieve constructie uitsluitend tot stand kan komen wanneer het werkwoord niet in een imperatieve maar in een subjunctieve vorm staat (7).

(7) a. !Lee!   Spaans
       Lees.2sg.imp
       'Lees!'
    b. *!*No* lee!
       Neg lees.2SG.IMP
       'Lees niet!'
    c. !*No* leas!
       Neg lees.2SG.SUBJ
       'Lees niet!'

De vraag die dit verschijnsel oproept is waarom het in sommige talen het geval is dat negatieve imperatieve constructies syntactisch uitgesloten zijn.

Het vierde verschijnsel betreft tenslotte de interpretatie van zinnen waar een universeel kwantificerend subject aan een negatieve markeerder vooraf gaat. In het Nederlands staat de negatie in het bereik van de kwantor ((8)a), zij het dat de grammaticaliteit van dergelijke constructies marginaal is. In een taal als het Frans heeft de negatie juist bereik over het subject ((8)b).

(8)   a. $^?$Iedereen komt niet   Nederlands
                 'Niemand komt'
        b.   Tous le monde *ne* parle *pas* votre langue   Frans
                 Heel de wereld neg spreekt neg uw taal
                 'Niet iedereen spreekt uw taal'

Dit vierde verschijnsel vormt een vraag op het gebied van de syntax-semantics interface. Terwijl de oppervlaktevolgorde in beide gevallen een interpretatie veronderstelt waarbij het subject bereik heeft over de negatie, is dit voor veel talen niet het geval. De onderzoeksvraag luidt: hoe valt dit verschijnsel te verklaren.

De vier bovengenoemde verschijnselen zijn reeds eerder bestudeerd en verschillende analyses zijn geformuleerd om deze vragen te beantwoorden. In deze studie wordt echter niet zozeer gepoogd deze verschijnselen in isolatie te bestuderen. Hun onderliggende typologische correlaties worden evenzeer in ogenschouw genomen. De uiteindelijke doelstelling van dit proefschrift is dan ook geweest om een eenduidige theorie van negatie te formuleren die alle vier verschijnselen verklaart alsmede hun onderlinge correlaties.

Om deze correlaties correct te kunnen beschrijven heb ik onderzoek verricht binnen drie verschillende empirische domeinen. In hoofdstuk vier beschrijf ik de resultaten op het vlak van diachrone en dialectologische variatie in het Nederlands. Door juist één taal in detail te bestuderen beschikt men over de mogelijkheid om zeer precieze generalisaties op te stellen over deze verschijnselen. De diachrone data heb ik deels uit de bestaande literatuur overgenomen, en zijn deels het resultaat van eigen onderzoek in diverse historische bronnen. De dialectologische data zijn het resultaat van het veldwerk dat ik samen met een aantal collega's heb uitgevoerd voor de Syntactische Atlas van de Nederlandse Dialecten (SAND). De nadelen van deze methode zijn (*i*) dat niet alle verschijnselen voorkomen binnen de Nederlandse microvariatie en (*ii*) dat het niet op voorhand valt uit te sluiten dat de generalisaties uitsluitend van toepassing zijn op het Nederlands. In hoofdstuk 5 voer ik daarom een typologische controle uit, d.w.z. dat ik voor een groep van 25 niet-willekeurig geselecteerde talen hun gedrag met betrekking tot de vier verschijnselen heb bestudeerd. Op basis van deze controle kunnen de volgende typologische implicaties worden opgesteld:

- De verzameling Non-Strict NC talen is een strikte deelverzameling van de talen die negatieve imperatieve constructies verbieden;
- De verzameling talen die negatieve imperatieve constructies verbieden is een strikte deelverzameling van talen die zinsnegatie niet uitsluitend door middel van een negatief adverbium uitdrukken;
- De verzameling talen die zinsnegatie niet uitsluitend door middel van een negatief adverbium uitdrukken is een strikte deelverzameling van de verzameling NC talen;
- De verzameling NC talen is een strikte deelverzameling van de verzameling talen die in zinnen waarbij een universeel kwantificerend subject vooraf gaat aan de negatieve markeerder, een lezing opleveren waarbij het subject binnen het bereik van de negatie valt;

In hoofdstuk zes behandel ik verschillende vragen naar de syntaxis van negatieve markeerders. Allereerst beargumenteer ik aan de hand van verschillende testen dat preverbale negatieve markeerders en negatieve affixen beschouwd dienen te worden als syntactische hoofden (X^o). Negatieve adverbia daarentegen zijn syntactische maximale projecties (XP). Deze onderverdeling van negatieve elementen heeft gevolgen voor de opbouw van de synatctische structuur van negatieve zinnen. Terwijl syntactische hoofden altijd een eigen syntactische categorie projecteren is dat voor negatieve adverbia niet noodzakelijk het geval. Daarom is de verwachting dat er drie soorten talen zijn: talen met een negatief hoofd die een eigen functionele projectie NegP genereren, talen waarbij het negatieve adverbium een Spec,NegP positie bezet en waarbij het hoofd Neg^o leeg blijft en talen waarbij er geen functionele projectie NegP beschikbaar is. In dergelijke talen neem ik aan dat het negatieve adverbium zich in een vP-adjunct positie bevindt en dat negatie in deze talen dus geen syntactische categorie vormt. Merk op dat deze typologische classificering overeenkomt met die voor NC talen. De aanwezigheid van een negatief hoofd Neg^o in een bepaalde taal impliceert het voorkomen van NC in die taal.

Naast de syntactische status bediscussieer ik ook in dit hoofdstuk de positie van negatieve elementen in de zin. Ik stel op semantische gronden vast dat de positie van NegP zich in de meeste talen direct boven vP en in enkele talen zelfs boven TP bevindt. Talen met een negatief hoofd onderscheiden zich verder in talen waarbij dit hoofd wordt basisgegenereerd in Neg^o en talen waarbij het hoofd als een clitic-achtig of inflectioneel element wordt basisgegenereerd in de directe omgeving van het finiete werkwoord.

Aanemende dat in imperatieve constructies geen functionele projectie TP aanwezig is en dat imperatieve werkwoorden naar een positie Mood^o dienen te bewegen volgt de restrictie op negatieve imperatieve constructies direct: aangezien MoodP in een hogere positie staat dan NegP moet het werkwoord over Neg^o heen bewegen naar Mood^o. Dat is uitsluitend mogelijk wanneer Neg^o niet gevuld is met een negatieve markeerder. In talen waarbij de negatieve markeerder wordt basisgegenereerd in Neg^o zijn negatieve imperatieven dan ook uitgesloten.

Uit de afwijkende positie van de negatieve operator in niet-NC talen (vP-adjunct positie) tegenover die in NC talen (in NegP) volgen de inverse bereiken van negatieve

zinnen met een universeel kwantificerend subject. Aangezien het subject wordt basisgegenereerd in *v*P staat in NC talen de negatie altijd hoger dan de originele subject positie terwijl in niet-NC talen de negatieve markeerder in hetzelfde domein wordt basisgegenereerd. Omdat universele kwantoren in de regel niet over negatie heen kunnen bewegen, leveren NC talen voor de genoemde constructies inverse lezingen op.

In hoofdstuk 7 staat de semantiek van n-woorden centraal. N-woorden zijn negatief gemarkeerde indefinite expressies, zoals *nessuno* in het Italiaans (4) of *nichego* in het Russisch (5). De betekenis van n-woorden vormt een notoir probleem voor theorieën op het gebied van negatie. Aan de ene kant lijken zij semantisch negatief te zijn, omdat zij in bepaalde contexten geïnterpreteerd kunnen worden als negatieve kwantoren, maar in andere contexten lijkt het er eerder op dat zij semantisch non-negatief zijn en door een andere negatie worden gelicenseerd.

Er kunnen grofweg drie verschillende benaderingen worden geselecteerd: benaderingen die stellen dat alle n-woorden semantisch negatief zijn en middels een proces van polyadische kwantifactie tot een grote negatieve kwantor samensmelten. Protagonisten van een dergelijke theorie zijn Haegeman & Zanuttini (1991, 1996) en De Swart & Sag (2002). Aan de andere kant zijn er theorieën waarin wordt voorgesteld dat n-woorden semantisch niet-negatieve Negatief-Polaire Elementen (NPE's) zijn die door een al dan niet overt aanwezige negatie worden gelicenseerd. Dergelijke theorieën zijn voorgesteld door bijvoorbeeld Ladusaw (1992) en Giannakidou (1997, 2000). Ten slotte zijn er analyses die stellen dat n-woorden contextueel of lexicaal ambigu zijn tussen negatieve kwantoren en niet-negative NPE's. Deze analyses zijn gepresenteerd door Van der Wouden & Zwarts (1993) en Van der Wouden (1994) resp. door Herburger (2001).

In dit hoofdstuk bespreek ik alle drie de soorten analyses en constateer ik dat n-woorden noch als negatieve kwantoren noch als niet-negatieve NPE's kunnen worden beschouwd. Een probleem voor analyses in termen van negatieve kwantoren is dat n-woorden ook kunnen voorkomen in de complementen van voorzetsels zoals *zonder* of van werkwoorden zoals *verhinderen* of *vrezen*. Eveneens zijn n-woorden geen NPE's aangezien de distributie van NPE's te veel afwijkt van die van n-woorden. Zo kunnen NPE's niet in fragmentarische antwoorden voorkomen, terwijl n-woorden dat wel kunnen. Ook kunnen NPE's over de zinsgrens heen worden gelicenseerd in tegenstelling tot n-woorden. Tenslotte laat ik zien dat de analyses in termen van ambiguïteit het gedrag van n-woorden evenmin kunnen verklaren. Bovendien beargumenteer ik op pretheoretische gronden dat theorieën die het gedrag van n-woorden zonder ambiguïteit kunnen verklaren te prefereren zijn boven ambiguïteitanalyses.

In mijn conclusies val ik terug op een interpretatie van Laudsaw's voorstel dat zegt dat n-woorden indefinieten zijn die syntactisch congrueren met de negatie (Ladusaw 1992). Ik toon aan dat een aantal problemen met betrekking tot de semantiek van n-woorden op deze manier kunnen worden ondervangen. Bovendien wijzen de typologische implicaties tussen NC en de syntactische status van de negatieve

markeerder ook in de richting van een benadering van NC in termen van syntactische congruentie.

In hoofdstuk 8 presenteer ik tenslotte mijn eigen theorie over NC. Ik baseer mij daarbij op de volgende punten: (*i*) n-woorden zijn niet-negatieve indefinieten die syntactisch gemarkeerd zijn voor negatie door middel van een oninterpreteerbaar kenmerk [uNEG] (9):

(9) $[[n\text{-}Q]] = \lambda P.[Q(x)\ \&\ P(x)]_{[uNEG]}$

(*ii*) de negatieve operator *Op*¬ draagt een interpreteerbaar kenmerk [iNEG] dat in staat is de [uNEG] kenmerken van n-woorden te elimineren en dat door middel van *existential closure* in staat is de vrije variabelen die door n-woorden worden geïntroduceerd te binden; en (*iii*) meervoudige congruentie, d.w.z. de aanname dat meerdere [uNEG] kenmerken door eenzelfde [iNEG] kenmerk kunnen worden geëlimineerd.
Bovendien stel ik dat de negatieve markeerder niet altijd de realisatie van de negatieve operator hoeft te zijn. Het kan ook de realisatie van een [uNEG] kenmerk zijn dat door een abstracte negatie wordt gelicenseerd. Aangzien de negatie altijd de hoogste positie in een keten van n-woorden inneemt, wordt hieruit direct het verschil tussen Strict en Non-Strict NC verklaard. In Strict NC talen is de negatieve markeerder semantisch niet-negatief, in Non-Strict NC talen is deze wel identiek aan de negatieve operator. Omdat bij zinsnegatie de gehele *v*P onder het bereik van de negatie valt, moet het wel zo zijn dat in Non-Strict NC talen de negatieve markeerder basisgegenereerd is in Neg°, hetgeen meteen de correlatie tussen Non-Strict NC en het verbod op negatieve imperatieven blootlegt: als een negatieve markeerder in Neg° is basisgegenereerd, blokkeert dit de verplaatsing van het werkwoord naar Mood°.
Onder deze aannamen, die elk onafhankelijk worden gemotiveerd, wordt NC compositioneel verklaard. In hoofdstuk 8 geef ik gedetailleerde verklaringen voor de diverse NC constructies in een aantal verschillende talen. In het tweede deel van hoofdstuk 8 bespreek ik bovendien hoe de problemen die ik in hoofdstuk 7 aanvoerde voor andere theorieën binnen deze analyse zijn opgelost. In het laatste deel van hoofdstuk 8 geef ik in het kort aan hoe deze theorie over NC zich verhoudt tot taalverwervings- en taalveranderingsvraagstukken.

Hoofdstuk 9 bevat tenslotte een samenvatting van de belangrijkste empirische en theoretische conclusies.