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NEGATIVE POLARITY LICENSING AND NEGATIVE CONCORD IN
THE ROMANCE LANGUAGES

by
Pilar Piñar Larrubia

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A dissertation Submitted to the Faculty of the
DEPARTMENT OF LINGUISTICS
In partial fulfillment of the Requirements
For the degree of
DOCTOR OF PHILOSOPHY
In the Graduate College
THE UNIVERSITY OF ARIZONA

1996
As members of the Final Examination Committee, we certify that we have read the dissertation prepared by Pilar Piñar-Larrubia entitled Negative Polarity Licensing and Negative Concord in the Romance Languages and recommend that it be accepted as fulfilling the dissertation requirement for the Degree of Doctor of Philosophy.

Final approval and acceptance of this dissertation is contingent upon the candidate's submission of the final copy of the dissertation to the Graduate College.

I hereby certify that I have read this dissertation prepared under my direction and recommend that it be accepted as fulfilling the dissertation requirement.

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ACKNOWLEDGEMENTS

First, I thank the members of my dissertation committee: Andrew Barss, Molly Diesing and Terry Langendoen. I am grateful that they worked with me in such a way that the writing of this dissertation could not have been smoother. I especially value the sensitivity that they displayed during the difficult personal time at which I found myself writing. They provided rigorous input without ever making me feel discouraged. I am indebted to each of them in many ways. To Andy, I am particularly grateful for always showing such interest in and enthusiasm for my work, for being so generous with his time, for sharing his encyclopedic knowledge, and for never failing to provide extremely detailed feedback on everything I ever wrote. There is no piece of argumentation in my dissertation that I have not discussed in detail with him. Our many conversations always left me full of ideas and encouragement to go on. To Molly, I am deeply indebted for her commitment to helping me even after leaving Arizona for Cornell. It was a great satisfaction to me to have her as a co-advisor throughout the writing of my thesis and to see her back in Arizona for my defense. My interest in the syntax-semantics interface has been largely inspired by her and is modelled after her teachings and after her own work. Terry, I thank especially for sharing his interest and own ideas on negative polarity, while letting me pursue my own view on the matter. His painstaking comments not only enriched the content of this dissertation, but also improved the style.

Thanks also to the other faculty members who enriched my experience at Arizona: Dick Demers, Mike Hammond, Eloise Jelinek, Simin Karimi, Adrienne Lehrer, Janet Nicol, Dick Oehrle, Sue Steele, Ofelia Zepeda, and, in particular, Diana Archangeli for her advice and help. I will always remember fondly my fellow students and friends. I make a special mention of some here: Jean Ann, Inés Antón, David Basilico, Anna Ciszelewka, Megan Crowhurst, Agur Elordui, Rosa García, Hisako Ikawa, Jorge Lemus, Diane Meador, Raquel Mejía, Jan Mohammad, Ander Moina, John Mugane, Shaun O'Connor, Diane Ohala, Long Peng, Pat Pérez, Montse Sanz, Chang-kook Suh, Keiichiro Suzuki, and my favorite classmate, Chip Gerfen, for lots of help and great discussions at any time. Special thanks to Rosemary Emery, for her support and friendship, and to Elizabeth Dyckman for her service. I also thank Gennaro Chierchia and Anna Szabolcsi with whom I had the fortune to study at the 1993 Institute and the linguistics community at Cornell, where I visited in the Spring of 1993—especially Molly Diesing and Margarita Suñer, and Vicky Cartens, John Bowers, Yafei Li, and Carol Rosen, whose classes I attended. Last, but not least, I thank the two people who introduced me to linguistics and encouraged me to pursue a Ph.D. back in the remote land of Montana, Bob Hausmann and Kemp Williams.
DEDICATION

I dedicate this dissertation to my family and close friends whose support and encouragement had a lot to do with my being able to complete this dissertation and whose names and contributions could not be included in the one page limit allotted for acknowledgements. In the first place, this dissertation is dedicated to my parents, José Piñar and Ana Larrubia, for making the necessary sacrifices to send the five of us to college in the first place and, especially, for supporting all my decisions, including coming to live so far away from home. I very specially dedicate this dissertation to my mother, who never doubted that I would complete it, but did not live to see it finished. To my siblings, Luis, Floren, Jose and Upe, for covering for me while I was away from home in the most crucial moments that a family can go through. To my family on this side of the Atlantic, especially Henry, Maggie, and Connie for their support and for helping me develop a sense of belonging in this new continent. To the Grumka family, for making Tucson home for us, and, finally, to my closest friends, Chip, Inés, Geert, and Rosa, for being with me in the worst moments of grief this past year, especially Chip for mourning with me and for pushing me to go on.
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ABSTRACT

The purpose of this study is to contribute to the investigation of the semantics and syntax of Negative Words (N-words) in negative concord languages, with a focus on Spanish. An in-depth look into the syntactic behavior as well as into the meaning of terms such as nadie 'nobody', nada 'nothing', nunca 'never', etc., will provide some insight into the controversial nature of these words in the Romance languages as well as a better understanding of their peculiar pattern of distribution. On a larger picture, a thorough investigation of the semantics and syntax of these items will, in turn, contribute to a better understanding of the nature of negative polarity items in general. Thus, as I just anticipated, my conclusion is that N-words are in fact equivalent to negative polarity items, and that the phenomenon of negative concord, by which, in some languages, various negative items contribute only one semantic negation to a sentence, is a subcase of the crosslinguistic phenomenon of negative polarity licensing. In this respect, my analysis of N-words builds on the analyses of Bosque (1980) and Laka (1990). I base my conclusion that N-words are negative polarity items upon an extensive survey of comparative data coming from different Romance languages as well as from
English, and I bring up new data and arguments supporting my view on the issue.

In addition to arguing for the negative polarity nature of N-words, I also explore the extent to which syntactic operations are involved in the licensing of N-words, and I provide evidence showing that N-word licensing does not directly involve syntactic movement (contra most standard assumptions). Finally, in my investigation of the nature of N-words, I go beyond simply identifying them as negative polarity items. Specifically, I look deeply into the logico-semantic contribution of N-words, and I present arguments and data showing that N-words do not have either negative or any other kind of quantificational force. Rather, as I argue, they are better characterized as logico-semantic variables (in the sense of Kamp 1981 and Heim 1982.) In this regard, I depart from Bosque's (1980) and Laka's (1990) characterization of N-words. My view is more radical than theirs in that I do not just claim that N-words do not have inherent negative content, but also that they do not have any quantificational force of their own at all.
1.0 Introduction to negative concord

As is well known, the Romance languages and many others exhibit a phenomenon known as NEGATIVE CONCORD. Negative concord arises when two or more negative elements contribute only one instance of negation to the meaning of a sentence (cf. Laka 1990, Zanuttini 1991, Haegeman & Zanuttini 1991, Ladusaw 1992 among others for recent discussion). Some instances of Negative concord structures in Spanish are seen below:

(1) Nadie dijo nunca nada.
   Nobody said never nothing
   'Nobody ever said anything.'

(2) No compré nada.
   I didn't buy nothing
   'I didn't buy anything.'

\[1\]This dissertation as well the rest of my graduate career at the U. of Arizona was financed almost in its totality by fellowships from the Graduate Minority office at the University of Arizona.
The phenomenon of negative concord poses a problem for semantic compositionality. Thus, as is illustrated above, the different negative terms in sentences (1) and (2) do not cancel each other out, as a compositional analysis of meaning would predict. For this reason, the study of negative terms in languages that allow negative concord has received a lot of attention in the study of grammar over the years. The interest in the study of negative words has been intensified in recent years due to the latest developments in the study of negation in syntax within the framework of the Government and Binding theory (cf. Pollock 1989, Ouhalla 1990, Laka 1990, Zanuttini 1991, etc.) In spite of all the efforts, the issue of what N-words are is far from settled, and there is no consensus on how negative concord is licensed. Here, I will look closely at the semantic contribution of N-words in Spanish, and I will offer an analysis of these terms that will establish some crucial connections among N-words, negative polarity items, and indefinite noun phrases in the view of Kamp (1981) and Heim (1982).

I will begin this chapter by illustrating the well known, peculiar pattern of distribution that N-words exhibit. Then, I will point out the main issues that are raised by the phenomenon of negative concord, and I will provide a general outline of the dissertation.
1.1 The distributional pattern of N-words

The distribution of N-words in the Romance languages has been widely discussed and has generated much debate over the years. The peculiarity in the distribution of N-words lies in the fact that their interpretation seems to depend to a large extent on whether they occupy a preverbal or a postverbal position within a sentence. Preverbal N-words display a fully negative interpretation—at least in matrix contexts—and they do not need to be accompanied by any other negative element. Some examples of preverbal N-words in various Romance languages are given below:

(3) **Nunca** lo he visto. (Spanish)
    'I have never seen him.'

(4) **Nessuno** é venuto. (Italian)
    'Nobody has come.'

(5) **Ningú** m'a vist. (Catalan)
    'Nobody has seen me.'

In preverbal position, then, N-words behave like negative quantifiers such as nobody in languages like English. By contrast, postverbal N-words display a very different
behavior. Specifically, postverbal N-words need to be c-commanded by some affective operator, such as negation.\(^2\) Otherwise, they are left semantically unlicensed. When the licenser is another negative element, N-words display a negative concord effect. The behavior of postverbal N-words is illustrated below:

\[(6) \text{Lo he visto nunca. (Spanish)}\]

\[
\text{I have seen him never}
\]

\[(7) \text{Nadie lo ha visto nunca.}\]

\[
\text{Nobody has seen him never 'Nobody has ever seen him.'}
\]

\(^2\) See Klima (1964) for the description and definition of [+affective] environments. Ladusaw (1980) redefines Klima's (1964) [+affective] feature using the notion of downward entailment, where downward entailing operators in turn correspond to monotone decreasing operators (cf. Barwise and Cooper 1981). Operators can be monotone increasing or decreasing depending on whether they produce upward or downward entailments for pairs such as (i) and (ii), and (i) and (iii):

\[
\begin{align*}
\text{(i) Every person left.} \\
\text{(ii) Every woman left.} \\
\text{(iii) Every person left early.}
\end{align*}
\]

The entailment from (i) to (ii) is downward, since it runs from the superset of people to the subset of women. Thus, every is downward entailing for its first argument. (i), however, does not entail (iii). Rather, (iii) entails (i). This entailment is upward, since it runs from the subset of people who left early to the superset of people who left. Every is upward entailing for its second argument.
(8) **Pocas personas** lo ven nunca.
   Few people see him never
   'Few people ever see him.'

(9) *Ho visto nessuno.* (Italian)
   I have seen nobody

(10) **Non ho visto nessuno.**
    Not I have seen nobody
    'I haven't seen anybody.'

(11) *He vist ningú.* (Catalan)
    I have seen nobody

(12) **No he vist ningú.**
    Not I have seen nobody
    'I haven't seen anybody.'

The examples above illustrate that postverbal N-words behave like negative polarity items (terms like anybody) in English. As has been widely discussed in the literature, words like anybody require special licensing conditions in order to be interpreted. They are called negative polarity items (NPIs) because they typically appear in so called affective environments, such as negation and other mononote decreasing
contexts (cf. Klima 1964, Ladusaw 1979, 1981).\footnote{As I explained earlier, Klima's (1964) feature [+affective] was redefined in terms of the notion of downward entailment by Ladusaw (1979). Other classical attempts to define the contexts that license the so called negative polarity items can be found in Baker (1970), Jackendoff (1972), Fauconnier (1975), and Linebarger (1980). More recent discussions of the licensing contexts for negative polarity items are Kadmon and Landman (1993), and Lee and Horn (1994).} If this requisite is not satisfied, the polarity item will be left unlicensed. Note, for example, the partial paradigm in (13) through (16):

\begin{enumerate}
\item (13) I didn't see anybody.
\item (14) I hardly saw anything.
\item (15) Did you see anything?
\item (16) *I saw anything.
\end{enumerate}

A comparison between the Romance data in (6) through (12) and the English data in (13)-(16) illustrates the close parallelism that exists between negative polarity items in English and N-words in postverbal contexts. Like English negative polarity items, postverbal N-words do not seem to have negative content of their own, and, as we saw, they crucially need an affective element in a c-commanding position in order to be licensed. This licensing operator can be either a negative head or another negative word (as in 7 and 10), or some other type of monotone decreasing operator (as in 8).
Other affective environments, such as interrogative and comparative contexts can also license N-words: 4

(17) Has jugado nunca al fútbol? (Spanish)
Have you played never football?
Have you ever played football?

(18) Enrique se cree más listo que nadie.
Enrique thinks himself smarter than nobody
Enrique thinks that he is smarter than anybody

We have seen, then, that the licensing conditions for N-words appear to be different depending on whether they occur in preverbal or in postverbal position. The janus behavior of these terms might suggest at first sight that there are two homophonous sets of N-words, with one set corresponding to the set of negative quantifiers (such as nobody in English) and the other consisting of negative polarity items (such as anybody). The problem with such an explanation is that it wrongly predicts that sentences such as (7) should be ambiguous between a negative concord reading and a double negative reading, and it does not account for why we do not

4See Higginbotham (1993) for a discussion of how interrogative contexts fit within the definition of downward entailing contexts. For a discussion of the licensing of English negative polarity items in comparative contexts see Linebarger (1987).
find postverbal N-words (of the negative quantifier variety) in non-affective environments, as can be seen by comparing:

(19) *Vi a nadie.  
I saw nobody.  

(20) No vi a nadie.  
I didn’t see nobody  
‘I didn’t see anybody.’

The requirement that postverbal N-words must be c-commanded by a licenser applies not only to direct objects, but also to indirect objects (21 and 22), adjuncts (23 and 24), and to postverbal subjects (25 and 26):

(21) *Le di un gato a nadie.  
I gave a cat to nobody

(22) No le di un gato a nadie.  
I didn’t give a cat to nobody  
‘I didn’t give a cat to anybody.’

(23) *Lo vi en ninguna parte.  
I saw him in no place

(24) No lo vi en ninguna parte.  
I didn’t see him in no place  
‘I didn’t see him anywhere.’
(25) *Habló nadie.
   Talked nobody

(26) No habló nadie.
   Not talked nobody
   ‘Nobody talked.’

Any theory that supports the view that there are two different sets of N-words must deal with the problems just pointed out above. Correspondingly, any theory that claims that there is only one set of N-words must answer the question of what the nature of N-words is, and it must also define the relevant licensing conditions that will correctly predict the occurrence of both preverbal and postverbal N-words. Thus, a theory that claims that all N-words are negative quantifiers must explain the obligatory presence of a licenser for postverbal N-words. A theory that, to the contrary, analyzes all N-words as negative polarity items is consistent with the behavior of postverbal N-words (cf. Ladusaw 1979), but it needs to explain the occurrence of N-words in preverbal position, where no c-commanding licenser is typically present.

Besides the structural licensing problems associated with N-words, we will see that N-words also show semantic variability, and their varying semantic interpretation poses a problem for either a theory in which they are viewed...
exclusively as negative quantifiers or exclusively as negative polarity items.

In the following chapter, I discuss in detail the problematic issues raised by both the distribution and the varying interpretation of N-words in various Romance languages. In so doing, I examine a variety of approaches that have been put forward to deal with these issues. As will become clear, the discussion in the literature is divided between two basic positions: the position defended by those researchers who claim that N-words are inherently negative and quantificational, and the position defended by those who claim that N-words do not have intrinsic negative meaning and should instead be treated as negative polarity items. The first position has recently been defended by Zanuttini (1991), as well as by Haegeman and Zanuttini (1991) and Haegeman (1992, 1995), who extend this argument outside of the Romance languages family. The second position has been defended by Rizzi (1982) for Italian and by Bosque (1980) and Jaeggli (1982) for Spanish. More recently, the NPI approach has also been defended by Laka (1990) and Bosque (1992), among others. However, even among those who agree on what the nature of N-words is, there is some disagreement regarding the specific licensing mechanism for these items. A widespread view is that N-words move at the level of Logical Form (LF). Thus, as we will see, under Zanuttini's (1991) approach (see also Haegeman
and Zanuttini 1991, and Haegeman 1992), N-words must move to the Specifier position of the Negation Phrase (Spec NegP) in order to satisfy the Negative Criterion. And, under Rizzi's (1982) and Longobardi's (1991) approaches, for example, N-words move at LF in order to satisfy their quantificational properties and in order to be construed with their S-Structure scope marker. In contrast, Laka (1990) analyzes N-words as existential quantifiers with polarity requirements, in the spirit of Ladusaw's (1979, 1980) analysis of negative polarity items in English, and does not specifically propose an LF movement analysis to account for the licensing of these terms in Romance. Interestingly, and to make the point of how complicated and controversial the arena of discussion is, Bosque (1992), who, like Laka, considers N-words to be negative polarity items, sides with Zanuttini (1991) and other proponents of the negative quantifier approach in arguing explicitly that the licensing of N-words should be represented as LF movement to Spec NegP.

There are various major issues to be clarified regarding recent discussion on N-words. One is to determine whether all N-words are quantificational, whether they have negative semantic content, and whether they should be treated as negative polarity items. Another issue is to determine how N-words are licensed. In particular, it needs to be clarified whether N-word licensing is mediated by syntactic movement at
the level of LF, or whether N-words can be licensed in situ by virtue of appearing within an appropriate semantic context. In preparation for my own account of these problems, I discuss in chapter 2 the drawbacks and advantages of the different alternatives. In so doing, I clarify the issues as well as the data to be examined. After considering a comparative survey of data from different Romance languages, I will present arguments for choosing the hypothesis that N-words are, unambiguously, negative polarity items with no negative force of their own, and, along the course of the dissertation, I will bring up new data supporting this view.

In chapter 3, I mainly concentrate on the controversial issue of whether N-word licensing is mediated by syntactic movement. Specifically, I confront and reject the arguments that have been presented in favor of a movement approach to N-word licensing, and I present some heretofore undiscussed data that argue explicitly in favor of an in situ approach. The same data that I bring up in support of an in situ analysis of N-word licensing will also turn out to support the point that N-words lack inherent negative force.

Given that there is no consensus on the semantics of negative polarity items in general, a satisfactory account of N-words cannot stop at establishing their negative polarity nature. In chapter 4, I investigate the logico-semantic nature of N-words, and I argue that N-words in Spanish and in other
Romance languages are semantically equivalent to indefinite variables in the sense of Kamp (1981) and Heim (1982). Evidence for this argument will come from the quantificational variability of N-words, from their ability to be unselectively bound, and from other similarities between N-words and indefinites in general. As I will discuss, treating N-words as logicosemantic variables accounts for the usually ignored fact that the semantic variability of N-words depends not only on the position of the negative terms within the sentence (a well known fact), but also on the quantificational force of neighboring operators. I will also show that treating N-words as indefinite variables provides a natural explanation for the puzzles raised by the interesting fact (pointed out by Bosque 1992) that negative concord is possible across indicative complements only when the complement itself is a Wh-clause. The paired readings between the negative words and the Wh-words in these cases will be shown to follow naturally from the logicosemantic analysis of N-words that I propose.

An analysis of negative polarity any as a Heimian variable has been adopted for English by Lee & Horn (1994), who in turn draw upon work by Kadmon & Landman (1993). Some obvious similarities between negative polarity items in English and in Spanish will follow from treating both sets of items as indefinite variables. At the end of chapter 4, I point out some crosslinguistic consequences of my particular
logicosemantic analysis of N-words. Specifically, I draw attention to a unified account of N-words in Romance, any-type words in English (cf. Lee 1994 and Lee and Horn 1994), indefinites and Wh-phrases in Chinese (cf. Cheng 1991) and many other languages, and the polarity item bhii in Hindi (Dayal 1995).
2.0 The characterization and licensing of N-words

In this chapter, I discuss the issue of the proper characterization of N-words. In particular, I review and criticize the evidence put forward in the literature both for treating N-words as negative quantifiers with negative content, and for treating them as negative polarity items with no negative content of their own. (I will also consider a third alternative, that of Longobardi 1991, in which N-words are viewed as ambiguous items). Given that the topic of negative concord is an extremely controversial one, a critical review both of the different approaches to this phenomenon and of the relevant data is necessary in order to clarify the central issues to be investigated in this dissertation.

Upon close examination of the relevant issues and data, I will side with the proponents of the hypothesis that N-words are, unambiguously, negative polarity items with no negative force of their own, and, in the course of the dissertation, I will bring up new data and arguments supporting this view. I will begin by discussing the issues raised by the alternative of viewing N-words as negative
polarity items, and I will then consider other possible alternatives as well.

2.1 N-words viewed as Negative Polarity Items

Recall that, as I pointed out in the introductory chapter, the main problem that arises for a uniform analysis of both preverbal and postverbal N-words (whether they are both considered as negative quantifiers or as negative polarity items) is that of formalizing a licensing mechanism that will account both for the occurrence of preverbal and postverbal N-words in the same fashion. Among the approaches that take N-words to be uniformly negative polarity items are those by Bosque (1980), (1992), Laka (1990) and Rizzi (1982). In all of these approaches, a proviso has to be made in order to account for the occurrence of N-words in preverbal position, a position for which no obvious licensor is present. Below, I discuss each of these proposals in turn.

2.1.1 The licensing of preverbal N-words: Bosque’s (1980, 1992) and Laka’s (1990) approaches

Bosque (1980) proposes that both the postverbal N-word in
(1) and the preverbal N-word in (2) correspond to one and the same lexical item. He claims that sentence pairs such as (1) and (2), are transformationally related:

(1) No vino nadie.  
(2) Nadie vino.

Not came nobody
'Nobody came.'

According to Bosque, a D-structure equivalent to sentence (1) serves as input to sentence (2). A transformational rule which he calls TEMATIZACIÓN DE TÉRMINOS DE POLARIDAD NEGATIVA 'negative polarity items thematization' moves a D-structure postverbal N-word next to the negative marker no via Chomsky adjunction. Subsequently, the negative marker undergoes a deletion rule, yielding as output a structure like (2). Bosque's formalization of this operation is given in (3):

(3) X-NEG [V-Y-NWord-W] -Z

Under this view, in both (1) and (2) above, the N-word is a negative polarity item that is licensed by an affective operator, namely by no. It is the deletion rule that yields
the appearance that preverbal N-words are different from postverbal N-words in that they do not need to be licensed by an affective element.¹

In support of his deletion rule, Bosque cites data from earlier stages of Spanish, where the intermediate derivational stage of a sentence, after fronting of an N-word has taken place and before no is deleted, can be readily observed:

(4) Nadie no me quiere.
Nobody not loves me
'Nobody loves me.'

(La Celestina)

(5) Ninguno non puede conocer al Fijo sino por el Padre.
Nobody not can know the son but through the father
'Nobody can know the son but through the father.'

(Siete Partidas)

To Bosque's argument one can add the fact that some Romance languages, such as Catalan, exhibit the same phenomenon synchronically, although in Catalan the presence of the negative marker with a preverbal N-word is optional (cf. also

¹Bosque (1980) does not explicitly explain what the licensing mechanism consists of. But he gives an extensive description of the contexts that serve as triggers for negative words and other polarity expressions in Spanish.
French and Romanian):

(6) **Ningú (no) m'ha vist.**

Nobody not has seen me

'Nobody has seen me.'

Additionally, as Suñer (1995) reports, some dialectal varieties of contemporary Spanish can be found in which preverbal negative words do cooccur with an overt negative head, as in:2

(7) **Pues yo tampoco no te creas que habré ido más de un par de veces o tres.**

Well me neither don't you believe that I have gone more than a couple of times or three

'Well, don't you believe that I have gone more than two or three times either.'

(8) **...para que ya nunca nadie no venga jamás a arreglarse a mi casa...**

...so that now never nobody not come ever to get ready in my home...

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2The data in (7) and (8) is from Suñer (1995), who extracts these sentences from Sánchez Ferlosio's novel El Jarama. The dialect reflected here is that spoken by the youth in the 1950s in Madrid.
'...so that nobody will ever again come to get ready in my home...'

In sum, Bosque's position is that there is a single set of N-words in Spanish and that they do not carry negative meaning of their own. Rather, N-words are licensed by an affective operator, which in the examples above is a negative head. Importantly, his neg deletion rule in (most varieties of) contemporary Spanish accounts for why an NPI can appear in preverbal position, where no licenser is overtly present.

A very similar tack is adopted by Laka (1990). She defends the view that N-words should be uniformly seen as negative polarity items, whether they are postverbal or preverbal, and she adopts Ladusaw's (1979) view of negative polarity items as existential quantifiers. Like Bosque, Laka argues that preverbal N-words in Spanish are negative polarity items that are licensed by an abstract negative head. Laka formalizes this approach by claiming that preverbal N-words occupy the Specifier position of a functional projection which she calls Sigma Phrase (ΣP). This projection is headed by either an affirmative or a negative head. Thus, ΣP will correspond to NegP only in negative sentences. Laka also discusses some evidence that indicates that in some languages, such as Basque and Spanish, ΣP is above AgrP. The hierarchical position of ΣP explains the preverbal occurrence of N-words
both in Spanish and in Basque, as is sketched in (9):

(9) \[ [[SP_{\text{Spec,N-word}}][X]_{\text{AgrP}}...[TP...[VP...]]]]\]

The position of \( SP \) is, according to Laka, parameterized across languages (see also Ouhalla 1990 for NegP.) Thus, \( SP \) in English is arguably not hierarchically higher than AgrP. This parameterization explains the fact that English does normally not allow negative polarity items in preverbal position, since the position of \( SP \) in English is too low for a negative head to c-command a preverbal negative polarity item. As Laka points out, note that when the negative head raises to a position c-commanding IP, a preverbal negative polarity item is allowed in English, as in (10), where the negative head has raised to Comp:

(10) Who doesn't anybody like?

\[^{3}\text{As Andrew Barss has pointed out to me, one could say that in (10), the negative polarity item in the subject position is not licensed by the negation in Comp, given that interrogative contexts license negative polarity items independently. Laka (1990) addresses this issue and compares sentence (10) to (i) below, where the negation is not in Comp:\}

(i) Who does anybody not like?

She claims that in (i) the interpretation of anybody is different from that in (10). In (i), anybody seems to have the so-called free choice interpretation.
To sum up, like Bosque (1980), Laka sees all N-words as instances of the same type of lexical item, which she defines as an existential quantifier. She explicitly defines the position occupied by preverbal N-words, and she proposes that a mechanism of Spec/head agreement between an N-word in [Spec ΣP] and the negative head of ΣP is responsible for the licensing of preverbal N-words. In her view, the occurrence of N-words in contexts other than the preverbal position corresponds to occurrences of negative polarity items in languages like English and falls within the coverage of classical theories of negative polarity licensing such as that of Ladusaw (1979). Interestingly, however, the assumption that preverbal N-words are licensed via Spec/head agreement in the Spec of NegP raises the issue of whether postverbal N-words are also licensed in this position. This possibility is considered in recent work by Bosque (1992).

2.1.2 The licensing of postverbal N-words: Movement to Spec NegP?

adopts the idea defended by Pollock (1989), Ouhalla (1990), etc. that sentential negation is hosted by the functional projection of NegP. Following Laka (1990) and Zanuttini (1991), Bosque (1992) also assumes that in languages like Spanish and Italian, NegP is above AgrP. With these assumptions in mind, he maintains that preverbal N-words occupy the Specifier position of NegP, and that they are licensed via Spec/Head agreement by the abstract head of the negative phrase (cf. Laka 1990).

Interestingly, in an attempt to make the licensing of preverbal and postverbal N-words as uniform as possible, Bosque (1992) claims that postverbal N-words also end up occupying the [Spec NegP] position after they undergo movement at LF. Although I agree with Bosque's basic assumptions that N-words are uniformly negative polarity items and that preverbal N-words can be analyzed as occupying [Spec NegP], I will show that positing LF movement of postverbal N-words to the [Spec NegP] position is inappropriate. One of the reasons why LF movement of postverbal N-words proves to be inappropriate is that, after LF movement to [Spec NegP] takes place, a postverbal N-word should display all the scopal possibilities that a preverbal N-word can display, since they would end up occupying the same position. This prediction is not borne out, as can be seen by comparing (11) and (12) below:
(11) No parece haber tomado nunca cerveza.
    Not seems to have drunk never beer
    'S/he doesn't seem to have ever drunk beer.'

(12) Nunca parece haber tomado cerveza.
    Never seems to have drunk beer
    'S/he never seems to have drunk beer.'

In (11), the N-word nunca does not have scope over the raising, matrix predicate parece 'seems'. Thus, (11) can only be paraphrased as 'It seems that s/he has never drunk beer.' In contrast, (12) is ambiguous between the wide and narrow scope reading of nunca with respect to the matrix predicate. The most salient reading of (12), where nunca appears to the left of the matrix predicate, is the one in which nunca has scope over the matrix predicate. This reading can be paraphrased as: 'S/he never has the appearance of having drunk beer.' Crucially, this is the reading that (11) lacks. The narrow scope reading of nunca is also available in (12). In chapter two, I will bring to bear further empirical arguments against the LF movement of postverbal N-words, and I will discuss the movement approach to the licensing of postverbal N-words in more detail.

With the next subsection, I conclude my review of the approaches to negative concord as negative polarity licensing
by discussing the classical analysis of Rizzi (1982). As we will see, Rizzi's approach to the licensing mechanism of N-words in Italian (which is in turn based on Kayne's (1981) analysis of French personne) makes apparent the complexity that is involved in the task of deriving a licensing mechanism that will uniformly account for all the different occurrences of N-words in Romance. I will discuss how the classical analyses proposed by Rizzi (1982), Kayne (1981), and Jaeggli (1982) fall short of getting the right facts about long distance negative concord. In connection to this issue, I will discuss a recent analysis of crossclausal negative concord which, in my opinion, is more descriptionally adequate than the widely accepted approach of Kayne (1981), Rizzi (1982) and Jaeggli (1982), namely the Neg Comp analysis proposed by Laka (1990). I will then propose a different account which has wider empirical coverage than that of Laka and is also more explanatorily adequate.

2.1.3 A Quantifier Raising approach to the licensing of N-words in Romance: Rizzi (1982)

A well known approach to negative concord and the licensing of N-words is that of Rizzi (1982). Rizzi discusses the distribution of N-words in Italian, as well as the
phenomenon of negative concord, in a manner similar to Bosque's (1980) analysis. He observes that occurrences of postverbal *nessuno* 'nobody' type words are restricted to negative or interrogative environments:⁴

(13) Mi chiedo se Gianni abbia contattato *nessuno*.
I wonder whether Gianni has contacted nobody
'I wonder whether Gianni has contacted anybody.'

(14) Gianni *no* ha contattato *nessuno*.
Gianni not has contacted nobody
'Gianni has not contacted anybody.'

(15) *Gianni ha contattato *nessuno*.
Gianni has contacted nobody

Rizzi's claim is that *nessuno* type words are existential quantifiers with polarity requirements.⁵ He goes on to claim that as quantifiers, these types of polarity items undergo May's (1977) rule of Quantifier Raising (QR) at LF. The polarity requirements of these terms dictate that they must

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⁴As Zanuttini (1991) shows, the distribution of N-words in Italian is actually wider than that.

⁵In analyzing negative words as existential quantifiers with polarity requirements, Rizzi (1982) follows Ladusaw's (1979, 1981) analysis of negative polarity items in English.
end up by LF within the local domain of a negative or interrogative marker. When an N-word appears in an interrogative environment, the locality requirement on polarity licensing is fulfilled, according to Rizzi, by moving the N-word via QR to a position contiguous to an interrogative complementizer, as in the LF representation of (13) above:

(16) Mi chiedo [compse [nessuno, [Gianni abbia contattato e]]]

I wonder whether nobody Gianni has contacted

Regarding the licensing of N-words in negative environments, Rizzi proposes the following convention:

(17) In the structure [...]neg...Qx...], where neg is a clausal negation c-commanding Qx, and Qx is a quantifier belonging to a certain class, Qx optionally incorporates neg.

In sentences such as (14) above, nessuno would be a Qx. Incorporation of nessuno with neg would follow a process of QR, where the term incorporation is here used in the sense of Klima (1964). The relevant LF representation of (14) is given in (18):
(18) Non [nessuno₁ [Gianni ha contattato t₁]] QR
    [Non + nessuno₁ [Gianni has contacted t₁]] INCORP.

It is not clear from Rizzi's discussion where nessuno would move to at LF. Presumably, it would be adjoined to the clause containing the licensing negation.

Regarding preverbal occurrences of negative words, Rizzi adopts Klima's (1964) rule of negative incorporation into indefinites that is illustrated below:

(19) any-X-neg-Tense --> neg+any-X-Tense
    [where any is the first indefinite in the sentence, and where X may include others.]

This rule assigns the feature [+neg] to clause initial occurrences of nessuno in negative contexts. Thus, sentence (20) would be assigned the LF representation in (21) via QR and incorporation:

(20) Nessuno ha visto Mario
    Nobody has seen Mario

(21) [neg + Nessuno₁ [e₁ ha visto Mario]] QR + INCORPORATION

In Rizzi's (1982) approach, then, the licensing of all the
different occurrences of N-words is mediated by the general mechanism of QR.

Rizzi's and Bosque's respective analyses of Italian and Spanish are similar in that they both consider N-words to be existential quantifiers with polarity requirements. The LF movement approach to the licensing of postverbal N-words that Bosque adopts in 1992--although stated in more updated terms--is also consistent with Rizzi's QR analysis of postverbal N-words. In Bosque's terms, the moved N-word is licensed via Spec/head agreement with the negative head of NegP, and in Rizzi's terms, the QR-ed N-word is licensed via incorporation with the negative marker. As I will continue to argue throughout this thesis, the movement approach to the licensing of postverbal N-words encounters innumerable problems. One such problem is raised by instances in which the postverbal N-word is licensed, not by a negative head, but by some non-negative, downward entailing quantifier as in (22):

(22) Pocas personas lo ven nunca.

Few people saw him never

Thus, it is not clear how the licensing of the postverbal N-word by the quantifier pocas personas can be fulfilled via a process of incorporation (cf. Rizzi 1982) or Spec/head
agreement (Bosque 1992) in this case, without appealing to the semantic decomposition of the monotone decreasing quantifier.

Another problem raised by a movement approach to the licensing of N-words is that posed by the phenomenon of long distance negative concord. Since the question of locality is a central issue within the discussion of N-word licensing (and negative polarity licensing in general), I devote the next subsection to it.

2.1.4 The phenomenon of long distance negative concord

The idea of a movement approach to the licensing of negative words in Romance was initially proposed by Kayne (1981). Kayne's approach was inspired precisely by the phenomenon of negative concord across clause boundaries. Specifically, he claimed that QR of terms such as personne 'nobody' in French, in conjunction with the ECP applying at LF can account for the subject/object asymmetry that he finds in instances of long distance negative concord, as in (23) and (24):\(^6\)

\(^6\)As reported in Moritz and Valois (1994), these judgements are not consistent across French speakers.
(23) *Je n'ai exigé [qu'ils arrêtent personne].
I neg have required that they arrest nobody
'I have required for them not to arrest anybody.'

(24) *Je n'ai exigé [que personne soit arrêté].
I neg have required that nobody be arrested

According to Kayne, long distance QR of personne out of the subject position, i.e. a non governed position, in (24) yields an ECP violation.7 Thus, the ungrammaticality of (24), according to Kayne, is explained if we assume that personne

7Kayne draws a parallelism between the effect he observes in (23) and (24) and the subject/object asymmetry found in long distance Wh-extraction, as in:

(i) Who, do you think [that Mary saw ti?]
(ii)*Who, do you think [that ti saw Mary?]

The ungrammaticality of (ii), referred to as a "that-trace" effect violation has been standardly assumed to be due to a violation of the Empty Category Principle (ECP), since the subject trace fails to be either theta-governed or antecedent governed.

Empty Category Principle: Traces must be properly governed.

A theta-governs B iff A governs B and A theta-marks B.
A antecedent-governs B iff A governs B and A is co-indexed with B.

(cf. Chomsky 1981 and 1986 for a definition of government. Cf. also Rizzi 1990 for a restatement of the that-t effect in terms of a violation of head government and for a conjunctive definition of the ECP.)
must raise out of its containing clause in order to take the scope signalled by the negative marker ne in the matrix. After personne raises at LF, the subject trace of personne in (24) would not be properly governed, thus yielding a typical "that-trace", ECP effect. This is illustrated in (25):

(25) * Personne₁[Je n'ai exigé [que t₁ soit arrêté]]

The improved status of (23) would follow from the occurrence of personne in object position. In such a case, as the representation in (26) shows, the trace left by personne is in a properly governed position:

(26) Personne₁ [Je n'ai exigé [qu'ils arrêtent t₁]]

Kayne's facts provided considerable support to the view that negative terms in Romance undergo QR at LF in order to be interpreted, and there were attempts to reproduce the same effect that Kayne isolated for French in other Romance languages. Both Rizzi (1982) and Jaeggli (1982) claimed that the effect illustrated above in French also holds in Italian and in Spanish respectively. More specifically, they argued that a structure equivalent to (24) in Italian and Spanish (as in 27) could only have a non negative concord reading. That is, a reading in which there are two independent instances of
negation, one in each clause.

(27) No quiero [que nadie venga.]

I don't want that nobody come

'I don't want nobody to come.'

The double negation reading would follow from the inability of the preverbal negative word to be construed with the matrix negation in a long distance fashion. In a footnote, however, Jaeggli admitted that, given the appropriate intonation, preverbal instances of N-words can also be construed with a negation in a higher clause in Spanish, thus producing a negative concord reading. As it turns out, and as was pointed out by Piera (1983) and by Contreras (1984), the negative concord reading--as opposed to the double negative interpretation--is the more natural reading for sentences like (27) in Spanish even when said with a neutral intonation. Thus, in fact, the most natural reading for sentence (27) is "I don't want anybody to come". Unlike its French counterpart in (24), sentence (27) is not only grammatical, but also ambiguous between two readings; crucially, a dominant reading in which the two negative terms are construed together (the negative concord reading), and one in which there are two
independent instances of negation.\footnote{The double negative meaning arises as a consequence of the projection of a Negative Phrase in the embedded clause. In this case, the preverbal N-word occupies the embedded Spec NegP position and is licensed by the head of this NegP.}

Interestingly, the range of possible interpretations of embedded N-word subjects discussed by Piera and by Contreras for Spanish also seems to be present in the corresponding Italian and Catalan sentences:\footnote{I thank Gabriella Vigliocco and Paola Dussias, and Josep Fontana for discussion of the Italian and Catalan data, respectively, and for providing these examples.}

(28) Non voglio [che nessuno venga.] (Italian)
I don't want that nobody comes
'I don't want anybody to come.'
'I don't want nobody to come.'

(29) No vull [que ningú vingui.] (Catalan)
I don't want that nobody comes
'I don't want anybody to come.'
'I don't want nobody to come.'

The lack of subject/object asymmetries just pointed out for Spanish, Italian, and Catalan is not consistent with Kayne's ECP account of the French data, since, as it is shown by the negative concord reading of examples (27), (28), and...
(29), a preverbal N-word can be construed long distance with a negation in a higher clause. This weakens the movement analysis to the licensing of postverbal N-words, at least for Spanish, Italian, and Catalan.

Of interest here is Laka's (1990) account of long distance negative concord. As I review below, her approach captures the licensing of N-words across a clause boundary without resorting to movement, and, thus, it avoids the problem of dealing with the lack of subject/object asymmetries that I discuss above. Crucially, however, her account shares with that of Kayne's (1981), Rizzi's (1982), and Jaeggli's (1982) the assumption that the licensing of N-words takes place in a local fashion. In Kayne's, Rizzi's, and Jaeggli's analyses, the N-word moves into a local configuration with its licensor. In Laka's approach, an intermediate operator mediates between licensor and licensee and renders the licensing mechanism in a crossclausal structure local. After reviewing her account, I raise questions for the assumption that the licensing is in fact local, and I propose a solution to the puzzle of crossclausal negative concord, which, in my opinion, is more explanatorily adequate than Laka's.
2.1.5 Solutions to the puzzle of crossclausal negative concord

Here I discuss two different alternative ways to deal with the phenomenon of crossclausal negative concord. I will refer to the first alternative as the Negative Comp hypothesis, which was proposed by Laka (1990) and which assumes a local licensing relation between N-words and their licensors. The second alternative, which is the one that I advocate, will be referred to as the clause raising hypothesis. Crucially, this second alternative does not presuppose a local licensing requirement.

2.1.5.1 The Neg Comp hypothesis

Laka (1990) claims that in sentences like (30) below, where the N-word in the embedded clause appears to be licensed by the matrix negation, the actual licensor is a negative complementizer that is selected in the embedded clause under certain conditions:10

10A similar proposal can be found in Progovac (1988) and (1992).
Laka offers some evidence for her negative complementizer from Basque, where certain negative and negated verbs subcategorize for an embedded complementizer which is overtly different from the one that is selected in nonnegative contexts.

Laka's negative complementizer offers a solution to the problem of negative polarity licensing across the clause boundary, since her negative comp facilitates the licensing of embedded N-words by a matrix negation in a local fashion without the need to move the N-words to the matrix clause, as in the analyses of Kayne (1981), Rizzi (1982), and Jaeggli (1982). This is because the embedded negative comp selected by a matrix, negative predicate acts as an intermediary between the negative licenser in the matrix clause and the polarity item in the embedded clause. Crucially, Laka assumes that N-words are negative polarity items that are licensed through local c-command by an affective operator.

Recall that in the above sections, I pointed out several problems for the approaches that posit movement of N-words from an embedded clause into the matrix clause. Under an approach that allows licensing of embedded N-words without movement of these items outside of their clause, the lack of
subject/object asymmetries discussed in the previous section follows naturally. A negative complementizer in the comp position of the embedded clause c-commands and thus licenses preverbal and postverbal N-words alike. This is sketched out below:

(31) Neg... [Neg Comp [... V... N-word]]

(32) Neg... [Neg Comp [N-word... V...]]

A question that arises for Laka's Neg Comp theory is why is it so crucial in her analysis that the licensing of N-words be strictly local? That is, why does the Neg Comp need to mediate between the matrix negation and the embedded N-word? Note that this strictly local relationship between licenser and licensee also underlies the movement analyses of N-word licensing across the clause boundary (cf. Kayne 1981, Rizzi 1982, Jaeggli 1982, etc.) As I already pointed out, in those approaches, the embedded N-word raises to be construed in a strictly local configuration with the matrix negation. Below, I discuss that it is not altogether clear that the licensing relation needs to be strictly local.
2.1.5.1.1 Is N-word licensing local?

One of the reasons why Laka postulates that Neg Comp plays a role in licensing negative concord across the clause boundary is that it offers a way of formalizing the well known indicative/subjunctive contrast illustrated below:

(33) Juan no se acuerda de [que conocas-SUBJ a ningún artista.]
Juan not remembers that you-know no artist
'Juan does not remember that you know any artists.'

(34) *Juan no se acuerda de [que conoces-IND a ningún artista.]
Juan not remember that you-know no artist
#'Juan does not remember that you know any artists.'

(35) Juan no se acuerda de [que conoces-IND a Picasso.]
Juan not remember that you-know Picasso.
'Juan does not remember that you know Picasso.'

The paradigm above illustrates the generalization that negative concord cannot take place across an indicative boundary (Rivero, 1971, Laka 1990, among others). In (33), the embedded clause is in the subjunctive mood, and the embedded
negative word is licensed. In (34), however, where the embedded clause is indicative, the N-word is left unlicensed. Sentence (35) illustrates that remember in Spanish can take either an indicative or a subjunctive complement clause.

Laka captures the contrast between sentences like (33) and (34) by postulating that, in the relevant negative environments, subjunctive complement clauses are headed by a Negative Comp which can license an embedded N-word locally. In contrast, the indicative mood on an embedded complement clause indicates that no Neg Comp has been selected. The fact that negative concord cannot happen across indicative boundaries suggests that the licensing of N-words must be local, since the only available licenser for an embedded N-word in the relevant indicative contexts is the suprasentential negation.\(^{11}\) The contrast between indicative and subjunctive embedded complements according to Laka is represented below:

\[\text{(36) Neg...[Neg Comp [...Subjunctive...N-word]]}\]
\[\text{(37) Neg...[Comp [...Indicative...N-word]]}\]

Elegant as the Neg Comp hypothesis is, there is reason to believe that the inherent assumption that N-word licensing must be strictly local is problematic. A few examples

\(^{11}\)Here, of course, I am referring to sentences of the type of (34), where the indicative clause itself does not contain a negation.
discussed by Uribe-Etxebarría (1994) reveal that, in fact, Laka’s Neg Comp hypothesis might not be on the right track. These examples involve contrasts such as the one observed in (38) and (39) below:

(38) [That anybody would leave the company] was not mentioned in the meeting.

(39) *[That anybody will leave the company] was not mentioned in the meeting.

One of the arguments that Laka advances in favor of the active role of the Neg Comp in the licensing of negative polarity items is that NPIs can be licensed in sentential subjects even though, in such configurations, as in (38), the NPIs are not c-commanded by negation. According to Laka, it is the Neg Comp selected within the sentential subject that licenses anybody in (38), as in (40):

(40) \[cp[\text{NEG COMP That}] \text{ anybody would leave the company}\] was not mentioned in the meeting.

As a problem for Laka’s explanation, Uribe-Etxebarría (1994)

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12Sentence (38) is from Uribe-Etxebarría (1994), who, in turn, adapts it from Laka’s example (25) from chapter 3.
points out that Laka’s Neg Comp should also license anybody in sentences like (39), contrary to fact. Note that sentence (41), where (in contrast to (39)) no NPI appears within the sentential subject, is grammatical:\textsuperscript{13}

\begin{itemize}
\item (41) [That Peter will leave the company] was not mentioned in the meeting.
\end{itemize}

Uribe-Etxebarría appeals to Stowell’s (1993) theory of tense to explain the contrast between (38) and (39).\textsuperscript{14} Although a review of Stowell’s theory of tense is beyond the scope of this discussion, the basic idea, which is central for Uribe-Etxebarría’s explanation of the contrast illustrated above, is that there is a difference between the tense licensing requirements of the embedded tensed forms in (38) and (39) (repeated below as 42 and 43).

\begin{itemize}
\item (42) [That anybody would leave the company] was not mentioned in the meeting.
\item (43) *[That anybody will leave the company] was not mentioned in the meeting.]
\end{itemize}

\textsuperscript{13}Example (41) is from Uribe-Etxebarría (1994).

\textsuperscript{14}Stowell’s (1993) theory of tense is, in turn, based on Zagona’s (1989) theory.
Crucially, while the interpretation of would in the embedded clause in (42) is temporally dependent on the tense of the matrix clause, the interpretation of the embedded will in (43) is independent of the tense of the matrix. For example, let us suppose that in uttering (42), we are actually talking about something that happened five years ago. In retrospect, we know that some people left the company. In this situation, would in (42) expresses futurity with respect to the [+past] tense of the matrix clause. That is why, although would expresses future here, the leaving event can actually have taken place five years ago. This shows that would can be compatible with a [+past] tense reference time. In other words, would is not specified for a [-past] tense feature. In (43), however, the future tense expressed by will cannot be interpreted as being dependent on the [+past] tense of the matrix clause. In Uribe-Etxebarria's terms, this means that will is incompatible with a [+past] reference time, that is, will is specified for a [-past] tense feature.

The tense relationships exemplified in (42) and (43) can be expressed within Stowell's theory of tense by stating that in (42), the reference time of the subordinate clause is controlled by the event time of the matrix clause.\(^\text{15}\) This

\(^{15}\) Zagona (1990) and Stowell (1993) propose that tenses are predicates that take an external argument—a reference time—and an internal argument—the time of the event. According to Stowell, the external argument (the reference time) is a PRO temporal phrase that is (potentially) controlled by the
control relationship between the event time of the matrix and the reference time of the subordinate clause can only be achieved if the embedded clause in (42) appears within the scope of the matrix clause at LF. In contrast, in (43), the reference time of the subordinate clause cannot be controlled by the event time of the matrix, or a mismatch between the specified [-past] feature of will and the [+past] tense of the matrix would arise. At LF, then, the embedded clause of (43) must stay outside of the scope of the matrix clause in order to comply with its tense licensing requirements. The consequence of this is that independent principles having to do with the tense licensing requirements of the sentential subjects in (42) and (43) contribute to placing the sentential subject in (42), and thus the N-word that it contains, within the scope of negation. In (43), however, the tense licensing requirements of the sentential subject will leave the N-word outside of the scope of the matrix negation, as is illustrated in the LF representations below:

16See Uribe-Etxebarría (1994) for a more detailed explanation of how the morphological licensing requirements of the embedded tense are checked.

17Crucially, Uribe-Etxebarría argues that the level at which NPI licensing applies is LF. This is consistent with recent theoretical developments (Chomsky 1993).
(44) \(t_i\) was not mentioned in the meeting [That anybody would leave the company],

(45) *[That anybody will leave the company] was not mentioned in the meeting

If the Neg Comp in the sentential subject of (45) were to play a role in the licensing of the embedded N-word, the LF position of the sentential subject with respect to the matrix negation should not make a difference in the licensing of the N-word. From this, Uribe-Etxebarria concludes that the assumption that Neg Comp plays a role in long distance NPI licensing is dubious and that there are reasons to doubt that NPI licensing is strictly local.

In view of the problems inherent in Laka's Neg Comp hypothesis, I present below an alternative explanation to the subjunctive/indicative contrast that does not require Neg Comp to play a mediating role between the matrix negation and the embedded N-word. I refer to this alternative, which does not presuppose the strict locality of N-word licensing, as the Clause raising hypothesis.
2.1.5.2 The Clause raising hypothesis

As is well known, and as Laka (1990) herself observes, there is a contrast in the presuppositionality of subjunctive and indicative complement clauses. Whereas embedded, indicative clauses are presupposed to be true, the truth of subjunctive, complement clauses is not presupposed.\(^{18}\) So, for example, in (46), whether you know Picasso or not is left up for grabs. It might be the case that Juan is justified in not remembering that you know Picasso, because, in fact, you do not know him. In contrast, in example (47), where the embedded clause is indicative, it is presupposed that you know Picasso:

(46) Juan no recuerda [que conozcas-SUB a Picasso.]
         Juan not remembers that you know Picasso.
         'Juan doesn't remember that you know Picasso.'

(47) Juan no recuerda [que conoces-IND a Picasso.]
         Juan not remembers that you know Picasso
         'Juan doesn't remember that you know Picasso.'

This said, it can be argued that the ungrammaticality of (34), which is repeated here as (48) and which crucially differs

\(^{18}\)This contrast is described in the Spanish Royal Academy Grammar (R.A.E. 1989, p.476).
from (47) in that it contains an N-word in the embedded clause, can be derived from the presuppositionality of the embedded clause, if we assume that, for the presupposition to survive, the embedded clause must take scope outside of the negation of the matrix clause:

(48) *Juan no recuerda [que conoces-IND a ningún artista.]

Juan not remembers that you know no artist

'#Juan doesn't remember that you know any artists.'

Following the structural approach to scope assignment of May (1977) and Williams (1977), this can be achieved if the embedded clause raises and attaches to the matrix clause at LF, as in (49):¹⁹

¹⁹See Berman (1991), who proposes that presupposed complement clauses adjoin to the matrix clause at LF.
Once the complement clause is raised outside of the scope of the matrix negation, the N-word that is contained within the raised clause will no longer be c-commanded by its licenser—the matrix negation—and will, thus, be left unlicensed.

The idea that presupposed clauses raise at LF can account for the indicative/subjunctive contrast in negative concord without the need to appeal to a clause bound relation between licenser and licensee. In addition, an important advantage of choosing the Clause raising alternative is that it offers a uniform explanation for a variety of contexts in which N-words are left unlicensed. For example, as I will discuss in later sections, the so-called specificity effect on NPs directly restricts the distribution of N-words. Thus, N-words that are contained within a specific NP cannot be licensed from outside this NP. As I will show, this has misled various researchers into concluding that the phenomenon of negative concord is constrained by island configurations such as the complex noun phrase, when, in fact, it is only specific noun phrases (whether complex or not) that block negative concord.\(^\text{20}\) This effect can be explained if specific NPs, just like presupposed clauses, must take scope outside of negation, thus taking an N-word contained in them outside of the scope of negation as well. Given that the concepts of specificity and presupposition are semantically closely related (cf. Diesing

\(^{20}\)I postpone my discussion of these issues to chapter 3.
1990, 1992, for example), it would be a welcome result if both the indicative/subjunctive contrast and the specificity effect on N-word licensing out of NPs could be explained in a uniform manner.

As a third point in favor of choosing the Clause-raising analysis instead of the Neg Comp approach, I discuss here a small detail, that, as far as I know, has never been confronted in the literature, and which poses some difficulties for a purely morphologically driven analysis of the subjunctive/indicative contrast (such as that of Laka 1990). The problematic detail is the following. Although the discussed subjunctive/indicative contrast between (34) and (35) above is quite robust, for some speakers sentences like (50), with a matrix predicate like creer ('believe'), are marginally acceptable with the negative concord reading:

(50) ??Juan no se cree [que conoces-IND a ningún artista.]
       Juan not believes that you-know no artist
       'Juan does not believe that you know any artists.'

That is, some speakers sometimes allow negative concord across the indicative complements of nonfactive verbs like creer. What might at first appear as a difficult puzzle for any account of the subjunctive/indicative contrast has in fact a
rather simple explanation. The speakers that, under certain contexts, accept the negative concord reading of sentences like (50) are in fact interpreting the embedded clause as if it were subjunctive. That is, the negative concord reading of (50) is only possible under a nonpresupposed interpretation of the indicative complement. What this observation points out is that it is the presupposed/nonpresupposed status of the complement, rather than just its overt morphological mood, that determines whether negative concord will be allowed across a clause boundary or not. Recall that the Clause-raising approach relies on the presuppositional status of embedded complements, whereas the Neg Comp approach relies on a morphological difference between subjunctive and indicative clauses. Consequently, the Clause-raising approach can accommodate the marginal cases in which indicative clauses are transparent to negative concord, since it predicts that all complements that stay within the scope of negation at LF will allow N-word licensing across them. I take it that the nonpresupposed interpretation of the indicative complement in the discussed marginal cases signals that, in spite of its morphological mood, the complement did not raise at LF. In contrast, an account based on the pure morphological distinction between indicative and subjunctive clauses (such as the Neg Comp account), cannot explain the cases in which the indicative/subjunctive contrast on negative concord
becomes blurry. The fact that sentences such as (48) (repeated here as 51) do not allow a non-presuppositional interpretation of the complement follows from the factive nature of the main predicate. Indicative complements of factive verbs are always presupposed and, therefore, they do not have the (marginal) option of not raising at LF.

(51) *Juan no recuerda [que conoces-IND a ningún artista.]  
Juan not remembers that you know no artist  
#'Juan doesn't remember that you know any artists.'

To sum up, I have just discussed the issues raised by the phenomenon of long distance negative concord. In reviewing Laka's analysis of this phenomenon, I have pointed out how her postulation of a Negative Comp that acts as a mediator between a matrix negation and an embedded N-word avoids the problems faced by analyses that posit unbounded movement of N-words in embedded contexts. Thus, for example, her analysis explains why no subject/object asymmetries of the kind predicted by Kayne (1981) are observed (at least in Spanish, Italian, and Catalan.) I have also pointed out that, in spite of the advantages of Laka's approach over previous analyses, a strictly morphological account of the subjunctive/indicative contrast does not capture some marginal cases in which the
discussed effect is neutralized. In addition, and following Uribe-Etxebarria's (1994) observations, I have pointed out that Laka's assumption that licensing is strictly local is problematic, and I have sketched out an alternative analysis for the subjunctive/indicative contrast in terms of more general principles of the grammar that brings together a variety of apparently unrelated phenomena, such as the sensitivity of negative concord to the specificity effect on NPs, the mentioned subjunctive/indicative contrast, and some apparent thematic hierarchy effects on the licensing of N-words across DPs (cf. section 3.6.2.1).

2.1.6 Summary of the issues raised by the negative polarity view

In the preceding sections, I have reviewed some representative analyses of N-words as negative polarity items and I have discussed some of the problems and issues that arise out of these approaches. I pointed out that one of the major concerns of an approach that treats all N-words as negative polarity items is to account for the occurrence of preverbal N-words, and I discussed the solution to this problem proposed by Bosque (1980) (1992) and Laka (1990). Another issue that arose in the course of the discussion is
whether it is appropriate to assume that N-words are interpreted via a process of QR (cf. Rizzi's 1982 and Kayne's 1981 accounts) which facilitates the local construal of the N-word with its licenser, or whether it is the case that N-words are interpreted in situ and are licensed when they appear in an appropriate semantic context, which, for our purposes now, can be defined along the lines of Ladusaw's (1979) theory of negative polarity licensing. In the preceding discussion, I already anticipated some of the problems facing a movement approach to the licensing of N-words (whether the movement is triggered by QR or by feature checking requirements). As will become clear in chapter 3, the view that I support is that N-words are licensed in situ and that they receive their interpretation from their semantic environment.

In the next sections, I will discuss the alternative of characterizing N-words as negative quantifiers with inherent negative force. In particular, I will review and discuss Zanuttini's (1991) analysis, in which N-words are viewed as negative quantifiers in all contexts in which they appear. As in my discussion of N-words as negative polarity items, I will point out the pros and cons of this alternative.
2.2 N-words viewed as Negative Quantifiers

The position that N-words are negative quantifiers with negative content of their own has, at first sight, the advantage of accounting naturally for the occurrence of N-words in preverbal position. This is shown in (52), where no apparent c-commanding licenser is present:

(52) Nadie vino.

Nobody came.

Recall that under the approach that N-words are negative polarity items, an abstract negative head has to be posited in order to account for the satisfaction of the N-word's negative polarity licensing in this position. Under the view that N-words are negative quantifiers with intrinsic negative content, however, nothing special needs to be said, a priori, about the occurrence of preverbal N-words. As fully fledged, negative elements, they can stand alone and no licenser should need to be present. The obvious problem with this view arises when one considers occurrences of postverbal N-words in negative concord languages. As is well-known, postverbal instances of N-words cannot stand alone. That is, another

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21Recall also that this abstract negative head is not all that abstract, since it appears overtly in languages like Catalan and used to be overt in earlier stages of Spanish.
instance of negation (or some other kind of affective element) must always cooccur with N-words in postverbal position. Recall, for example, the data below:

(53) *Vi a nadie.  (54) No vi a nadie.
I saw nobody. I didn’t see nobody
'I didn’t see anybody.'

An explanation is needed for why, if N-words are negative quantifiers with inherent negative content, they require the support of a licenser when they appear in postverbal position.

An even more serious problem, in my opinion, is the one posed by the wide distribution of N-words in, roughly, all of the different environments in which negative polarity items, like English any, appear. The proponents of the negative quantifier hypothesis tend to concentrate on occurrences of N-words in purely negative contexts, such as the one in (54) above. However, as I reviewed in section 1.1, N-words also appear in non-negative environments, such as comparative and interrogative contexts, where the N-word itself does not readily display an intrinsic negative meaning. Note, for example, the nonnegative interpretation of the N-word in the comparative context in (55):
(55) Enrique se cree más listo que nadie.

Enrique believes himself smarter than nobody

‘Enrique believes that he is smarter than anybody.’

Below, I discuss how the proponents of the negative quantifier alternative deal with the problems that I have sketched out here. In particular, I concentrate on the account proposed by Zanuttini (1991), which is roughly the same account found in Haegeman and Zanuttini (1991) and Haegeman (1992, 1995). I will begin by discussing how Zanuttini (1991), and other defenders of the negative quantifier alternative, explain the fact that postverbal N-words in Romance must be c-commanded by a licenser.

2.2.1 The analysis of postverbal N-words under the negative quantifier approach

Zanuttini’s (1991) explanation of the fact that postverbal N-words always cooccur with a licenser is based on recent theoretical developments by which morphological features must be checked in a local fashion (in the Spec/head agreement configuration) within the relevant functional
Drawing upon this general theoretical framework, Zanuttini posits that, in negative concord structures, N-words check their negative features by moving to a position in which they can be in a Spec-head relationship with a c-commanding negative head. This requirement is known as the NEGATIVE CRITERION and can be satisfied at the level of LF:

(56) THE NEGATIVE CRITERION:

(i) Each Neg X° must be in a Spec/head relation with a negative operator.

(ii) Each negative operator must be in a Spec/head relation with a Neg X°.

22Within the Minimalist framework of Chomsky (1993), for example, case and agreement features need to be checked in the appropriate functional projections. The idea underlying feature checking, however, has been present in the theory for a long time, as in, for example, the Wh-Criterion, a requirement by which +Wh-phrases must be in a local relationship with a +Wh Comp.

23Haegeman and Zanuttini (1991) review some data involving negative concord and scrambling in West Flemish and posit that the scrambling facts can be interpreted as movement to a Spec/head configuration with a negative head. Zanuttini (1991) and Haegeman (1992) extend the analysis of the scrambling data in West Flemish to LF configurations in the Romance languages. I am not in a position to judge whether the West Flemish scrambling data should be interpreted in the manner of H&Z. My discussion will only make reference to the Romance languages and to the consequences that H&Z's, Haegeman's (1992) and Zanuttini's (1991) analyses have for negative concord in Romance.
The position to which N-words move is, then, the Specifier of the functional projection of NegP, which, according to Zanuttini (1991), dominates the projection of the subject Agreement Phrase in Italian, as in the schema:\(^{24}\)

\[
\begin{array}{c}
\text{(57)} \\
\lbrack \text{NegP}[\text{Spec}][\text{neg'nocm][\text{AgrP}...[TP}...[VP}...]\rbrack \]
\end{array}
\]

Importantly, in this account, for a negative phrasal projection to be licensed, there must be either an overt negative head, or an overt negative operator in the [Spec NegP] position.\(^{25}\) This explains the requirement of having either an overt negative head or another N-word c-commanding a postverbal N-word. If no overt N-word or negative head is present to license a NegP, a postverbal N-word will not have a negative projection to move to at LF in order to satisfy its morphological requirements. Thus, the feature checking requirement of N-words, in conjunction with the stipulation

\(^{24}\) Haegeman (1992) proposes that AgrP always dominates NegP (even in Italian). Negative words must be in [Spec, AgrP] at LF, and the Spec-head agreement requirement with a negative head is satisfied by movement of the negative head to Agr\(^{2}\). For the purposes of the discussion here, whether negative words move to [Spec AgrP] or whether they move to [Spec NegP] is irrelevant. In any case, the basic idea in H&Z and in Haegeman (1992) is that N-words must be in a Spec/head relationship with a negative head by LF.

\(^{25}\) Arguably, a preverbal N-word occupies [Spec NegP] (or [Spec AgrP] in Haegeman's terms). When an overt operator occupies [Spec NegP], and thus licenses a negative projection, the negative head of NegP does not need to be overt, due perhaps to the principle of economy (cf. Chomsky 1991).
that an overt negative element must be present in order to license the negative projection, accounts for the inability of postverbal N-words to occur without an overt negative licenser in negative concord structures. A question that arises now is: Why do preverbal negative quantifiers not cooccur with a negative head? That is, how do they satisfy the Negative Criterion?

2.2.2 How do preverbal negative quantifiers satisfy the Negative Criterion?

Regarding preverbal instances of N-words, it is argued that they occupy the Specifier position of NegP. The overtly filled Specifier is enough to license the negative projection, and, therefore, the negative head does not need to be overt in this case. Interestingly, note that the naturalness with which, at first glance, the negative quantifier analysis of N-words dealt with instances of preverbal N-words disappears once the Negative Criterion is adopted. Just as Laka's (1990) and Bosque's (1992) analyses need to postulate the presence of an abstract negative head to account for occurrences of preverbal N-words, so Zanuttini's analysis stipulates the presence of this abstract head with which preverbal N-words
agree and satisfy their feature checking requirements.\textsuperscript{26}

In summary, adopting some of Rizzi's (1991) ideas concerning what he calls "affective elements", Zanuttini proposes that N-words are subject to a morphological requirement similar to that to which Wh-words are subject. In her view, then, by LF, N-words must be in a Spec/head configuration with a negative head just like Wh-words must be in a Spec/head configuration with a [+wh] Comp. When more than one negative quantifier is present, they all stack up at LF by adjoining to the Specifier of the licensing, negative head. They then undergo a process of factorization (similar in nature to the process of quantifier absorption in Higginbotham and May 1981) yielding the effect by which a single instance of negation is contributed to the meaning of the sentence. This is how Zanuttini derives the fact that in negative concord, two negative quantifiers will not cancel each other out.

\textsuperscript{26}A problem that is often raised for the NPI analysis of N-words is that one can answer questions by uttering just an N-word in isolation. As in:

(i) ¿Quién vino? 'Who came?'
(ii) Nadie 'Nobody'

In (ii) the answer nadie is interpreted with full negative meaning. The explanation given by the defenders of the NPI hypothesis is that the answer above is part of an elliptical structure that contains, implicitly, the licensor of the N-word. Note that a negative quantifier approach also has some explaining to do for cases like (ii), since, in order to satisfy the negative criterion, the answer in (ii) must also be part of an elliptical structure. The occurrence of N-words in isolation, then, does not constitute evidence for any of the standard negative quantifier analyses of N-words.
It is clear that the above analysis, by which N-words must appear in a Spec/head configuration with a negative head, applies only to instances of N-words in purely negative environments. It is not so obvious how this approach accounts for the occurrences of N-words in nonnegative contexts. I discuss this issue in the next section.

2.2.3 N-words in nonnegative environments

Zanuttini accounts for the licensing of N-words in interrogative environments, for example, by arguing that in those cases, the N-word—which in her view is a negative quantifier—raises to the Specifier position of CP, where it is licensed by either a +Wh- or a yes/no operator in Comp. It is not clear to me, however, how the Negative Criterion is satisfied in these cases, since neither a +Wh- nor a yes/no question operator constitutes a negative head. Furthermore, it is not clear why, if N-words have inherent negative force, they display no negative meaning in interrogative as well as in other contexts, as in:

(58) Me pregunto [si vendrá nadie.]
    I wonder whether will come nobody
    'I wonder whether anybody will come.'
Zanuttini's explanation is that the contribution of the negative quantifier to the interpretation of the sentence will be the same as that of the operator with which it is construed via Spec/head agreement. This explanation is not fully satisfactory if, as she claims, N-words have inherent negative meaning. Specifically, in her explanation, Zanuttini seems to be claiming that the N-word in a sentence like (58) inherits the interpretation of the relevant sentential operator, thus acting more like a variable than like an element with inherent, negative, quantificational force. In relation to this observation, it is worth noting that negative quantifiers such as nobody in English contribute full negative force in questions, just as they do in declarative environments:

(59) I think [that nobody will come.]

(60) I wonder [whether nobody will come.]

In sum, the behavior of Romance N-words in interrogative as well as other nonnegative environments seems to be more consistent with that of negative polarity items than with that of negative quantifiers. The Negative Criterion does not easily account for the behavior and interpretation of N-words in non-negative environments. Thus if one allows the Negative Criterion to be satisfied via agreement not just with a
negative head, but also with an interrogative operator, or with the operator involved in comparatives, etc., N-words will suddenly start looking more and more like polarity items, which can be licensed in a variety of affective environments. This would render the Negative Criterion vacuous, since the Negative Criterion explicitly states that the relevant relationship is that between a negative operator and a negative head. Once we relax the definition of 'negative head', we must also relax the view of Negative words as quantifiers with strict, inherent, negative content.

An alternative solution to the problem of the semantic variability of N-words in different contexts is that proposed by Longobardi (1991). The solution that he proposes is that N-words are actually ambiguous between negative quantifiers and negative polarity items. I briefly discuss his proposal below.

2.3 Are there two sets of N-words?: Longobardi (1991)

In view of the complexity involved in the task of coming up with a uniform syntactic and semantic characterization of N-words, Longobardi (1991) argues that N-words are negative quantifiers only in negative environments, where he assigns an inherently negative meaning to these types of elements. In other environments, such as interrogative environments, where
N-words do not have a negative interpretation, Longobardi refers to N-words as negative polarity items, that is, as existential quantifiers with polarity requirements.

In my opinion, establishing the distinction among different types of N-words on the basis of the environment in which they appear misses the generalization that all of the triggering environments can be characterized as affective and that, therefore, we might be dealing with one and only one class of elements in all cases. The variability in meaning that N-words display in different environments, i.e. negative in negative environments, purely existential in interrogative environments, does not necessarily indicate that we are dealing with a different type of element in each case, but rather that the nature of N-words is similar to that of semantic variables whose quantificational force derives from relevantly local operators. This idea will be fully developed in chapter 4.

A further question that arises for Longobardi’s distinction of N-words as negative quantifiers and existential polarity items depending on whether they appear in negative or interrogative contexts is: what prevents existential, polarity N-words from appearing in negative environments? Longobardi’s classification, where every N-word appearing in a negative sentence is interpreted as a negative quantifier, would need to explain why the homophonous NPI counterparts found in
interrogative sentences never appear in negative contexts.\textsuperscript{27}
Such distribution appears peculiar given that in languages like English, negative polarity items with an existential interpretation can freely occur in all sorts of affective environments, among which are negative and interrogative sentences. Correspondingly, we should also expect to find negative quantifiers in interrogative environments.\textsuperscript{28}

2.4 Conclusions

In the preceding sections, I have discussed some of the problematic issues raised by both the distribution and the

\textsuperscript{27}In principle, one could say that, in fact, N-words of the negative polarity type do appear in negative contexts, but that it is not possible to distinguish the NPI variety from the negative quantifier variety in negative sentences, since they both look the same and they both need to be c-commanded by negation. Longobardi's classification, however, does not seem to leave room for making such a distinction, since he clearly makes a classification of N-words into two types depending on where they appear.

\textsuperscript{28}This possibility, however, is not discarded by the logic of Longobardi's argumentation, which would predict that negative quantifiers appearing in interrogative contexts would appear c-commanded by their negative scope marker, as in:

(i) \textbf{No} has jugado \textit{mucha} al fútbol?
    Not have you played never football?
    Haven't you ever played football?

Note that the N-word in (i) looks more like a negative polarity item, when compared to English, than like a negative quantifier.
varying interpretation of N-words in the Romance languages, and I have reviewed and criticized a variety of proposals that have been put forward to deal with these issues. As we saw, the main point that is at stake within the current controversy on negative concord is that of characterizing the semantic nature of Negative words. Are they quantificational? Do they have inherent negative content? Is negative concord a subcase of the general phenomenon of negative polarity? Regarding this issue, I pointed out that the close distributional similarity displayed by N-words and NPIs, such as English *any*, points in favor of treating N-words as negative polarity items and not as negative quantifiers. Recall that N-words do not only appear in negative environments, but also in interrogative and in comparative contexts, for example. This is illustrated in (61) and (62) below. As the English glosses indicate, these are typical contexts in which English NPIs occur.29

29The question in (61) only has a rhetorical reading, in which the speaker already knows the answer to the question. Although the distribution of English NPIs and Spanish N-words is very similar, there are some differences. One such difference involves the occurrence of NPIs and N-words in interrogative contexts. As it happens, English NPIs appear more readily in interrogative contexts than Spanish N-words do. The occurrence of Spanish N-words in interrogative contexts is roughly restricted to rhetorical questions. This restriction does not apply, however, to N-words in other Romance languages, such as Italian, where N-words can appear in a wider variety of interrogative contexts than just rhetorical questions (cf. Zanuttini 1991).
(61) Cuando has hecho tú nada por mí?
when have done you nothing for me?
When have you ever done anything for me?

(62) Enrique se cree más listo que nadie.
Enrique believes himself smarter than nobody
'Enrique believes that he is smarter than anybody.'

Other contexts in which both English NPIs and N-words can be found are, for example, adversative contexts and the downward entailing contexts created by certain adverbs and quantifiers (cf. Bosque 1980 and Laka 1990 for a detailed description of all the contexts in which N-words are allowed to occur in Spanish):³⁰

³⁰The occurrence of N-words (and NPIs in general) within the clausal complements of adversative predicates has been adduced as evidence in favor of the Neg Comp hypothesis by Laka (1990) and Progovac (1988). This is because, normally, adversative predicates do not license NPIs that appear directly in their object position. Thus, the contrast below suggests that it is the Neg Comp selected by doubt in (i) that licenses the embedded anything:

(i) I doubt [ctthat Mary said anything.]
(ii) #I doubt [nanything.] (ignoring free choice reading)

However, as is observed in Linebarger (1980), a propositional version of the NP object in (ii) renders the sentence grammatical, as in:

(iii) I doubted [nany involvement on his part.]

(Linebarger 1980)

It looks like predicates like doubt and deny have a preference for propositional complements. Thus, (iv) below is also infelicitous, even though the object is not an NPI:

(iv) ??I doubt [nsomething.]
(63) Dudo que vaya a venir nadie.
I doubt that will come nobody.
'I doubt that anybody will come.'

(64) Apenas comí nada.
Barely I ate nothing.
'I barely ate anything.'

Regarding the issue of the negative content of N-words, the fact that their interpretation varies with the context in which they appear also casts serious doubts on the hypothesis that they are negative quantifiers with intrinsic negative content. Note, for example, that the interpretation of the N-word in the rhetorical question in (61) is more consistent with a nonnegative, existential reading than with a negative quantifier reading. Similarly, note that the N-word contained in sentence (64) is not paraphraseable as 'nothing', but rather its meaning corresponds more accurately to the notion of 'a very small quantity, slightly bigger than 0'. That is, the sentence in (64) can be paraphrased as "I ate a very small amount of food." In my discussion of Zanuttini's (1991)

There are reasons to believe, then, that independent principles that might not be related to NPI licensing conspire to rule out sentences like (ii) (cf. Branigan 1992, as cited in Uribe-Etxebarria 1994, for discussion of this phenomenon.)

31 I will elaborate further on the quantificational variability of N-words in chapter 4.
approach, I reviewed how she proposes to account for the nonnegative interpretation of N-words in, for example, interrogative contexts. But, as I discussed, Zanuttini’s explanation is not entirely satisfactory, since it involves a profound weakening of the Negative Criterion, which in turn constitutes the cornerstone of her own analysis of negative concord. Similarly, I argued that Longobardi’s (1991) solution of treating N-words as ambiguous elements in order to account for their semantic variability leaves unanswered some crucial questions, and it misses the generalization that all of the contexts in which N-words appear—which are, roughly, the same environments in which English NPIs appear—can be unified by virtue of the fact that they all share a semantic core (cf. Ladusaw 1979, Linebarger 1980, Kadmon and Landman 1993, and many others).

Another important issue that arose within the course of the above discussion concerns the appropriate formalization of a licensing mechanism that will ensure the right interpretation of N-words in all the contexts in which they appear. As I discussed, some proposals maintain that the licensing of N-words is mediated by the phenomenon of quantifier raising at the level of LF (cf. Rizzi 1982, Jaeggli 1982, Kayne 1981), while other researchers claim that N-words are licensed via a process of Specifier/head agreement with their licenser, a process that, for postverbal N-words, is
preceded by movement of the N-word to the appropriate specifier position at the level of LF (cf. Zanuttini 1991, Bosque 1992). A third alternative is one that would be consistent with more semantically oriented analyses of negative polarity licensing, such as those proposed by Ladusaw (1979), Linebarger (1980), Kadmon and Landman (1993), etc. Under such an alternative, and with the assumption that N-words are negative polarity items, the only syntactic requirement for N-word licensing to obtain is that N-words appear within the domain of a licenser (i.e. within a licensing context), where a licenser (or a licensing context) can be defined in semantic and pragmatic terms, such as the ones proposed in, for example, the work of Ladusaw (1979), Linebarger (1980), Kadmon and Landman (1993), and Lee and Horn (1994). Ultimately, this third alternative is the one that I will defend along the course of this dissertation. I will continue to explore the hypothesis that N-words are negative polarity items in all contexts, and I will bring to bear new evidence showing that negative words do not have intrinsic negative content and that their licensing and interpretation is not directly mediated by syntactic movement.32

32In this regard, I disagree with the analysis in Bosque (1992), where he explicitly advocates for a movement analysis of N-word licensing.

In my criticism of Bosque’s (1992) and Rizzi’s (1982) movement analyses of negative concord, I briefly noted some of
the reasons why a syntactic movement approach to the licensing of N-words is undesirable. One such reason, as I pointed out, is that the syntactic movement analysis makes incorrect predictions regarding the scopal interpretation of N-words with respect to other constituents in the sentence.\(^{33}\) We also saw that the movement approach raises problems for the phenomenon of negative concord across the clause boundary. As I discussed, the subject/object asymmetries that Kayne (1981) pointed out for the behavior of French personne do not obtain in Spanish, Italian, or Catalan.\(^{34}\) Regarding the phenomenon of crossclausal negative concord, I also raised the issue of locality in the licensing of N-words. Based on Uribe-Etxebarría’s (1994) observations, I questioned the local licensing approach that is generally advocated in the classical literature on negative concord (cf. for example, the long distance movement analysis of Kayne 1981 and Rizzi 1982, and the neg Comp analysis of Laka 1990). As a counterproposal to the local licensing approach, I sketched out an account for the subjunctive/indicative contrast exhibited by long distance negative concord that exploits the difference in presuppositionality between indicative and subjunctive

\(^{33}\)Recall examples (10) and (11) of chapter 2, where I consider the relative scope of the N-word nunca ‘never’ and the raising predicate parecer ‘seem’.

\(^{34}\)Bear in mind also that Kayne’s judgements are not consistent across French speakers (cf. Moritz and Valois 1994).
clauses. As will become clear in my discussion of various DP island effects in chapter 3, such an account brings in line the indicative/subjunctive contrast with other apparently disparate phenomena involving negative concord.

In the next chapter, I present some data that has not yet been incorporated into the discussion of negative concord and, which, I argue, prove to be rather revealing both for determining the semantic content of N-words and for determining the appropriate LF representation of negative concord structures. Specifically, the evidence that I present involves configurations in which a quantified phrase intervenes between an instance of negation in a matrix clause and an N-word in the object position of the embedded clause. Such a configuration resembles the weak island configuration for negative concord construal in that a scope taking phrase intervenes between two elements that are construed together. If N-words take unbounded scope in order to be construed with the matrix negation, one might expect that the intervening quantified phrase will block the negative concord construal via a relativized minimality effect. I will show that the scopal interaction between the matrix negation, the intervening quantified phrase, and the embedded N-word provides strong evidence against a movement analysis of the licensing of N-words, and it helps clarify the issue of their semantic nature.
Chapter 3
EVIDENCE FOR A NON-MOVEMENT ANALYSIS AND FOR THE NON-NEGATIVE CONTENT OF N-WORDS

3.0 Introduction

In the previous chapter, I pointed out the main issues that are involved in the current controversy on negative concord. In the following sections, I focus on two of these issues. Namely, on the appropriate characterization of negative concord (and N-word licensing in general) and on the semantic content of N-words. Regarding the first issue, I present new empirical evidence showing that negative concord cannot be characterized as a process equal or similar to quantifier raising. More generally, I argue that negative concord is not licensed via syntactic movement at the level of LF. Regarding the second issue, the data that I analyze will also support the point that N-words do not have intrinsic, negative content.

After I present positive evidence for an in situ characterization of negative concord, I will carry out an in depth discussion of the syntactic arguments that have been proposed in favor of the movement analysis. As will become clear, most of the arguments postulated in favor of the
movement approach are based on syntactic island effects (cf. Longobardi 1991 and Moritz and Valois 1992, 1994). In section 3.6, I discuss Longobardi's (1991) and Moritz and Valois's (1992, 1994) arguments and I point out that their evidence is, at best, inconclusive and that their line of argumentation is, in some cases, flawed. I will show that the alleged island effects that negative concord appears to display can be explained on independent grounds and do nothing to prove that N-word licensing involves syntactic movement.

3.1 Evidence for an in situ analysis of N-word licensing

In chapter 2, I briefly mentioned some of the disadvantages of an unbounded LF movement approach to N-word licensing. Thus, for example, I mentioned that an analysis that claims that the negative concord effect in (1) is produced by raising the postverbal N-word and construing it (via incorporation or Spec/head agreement) with the negative marker has little to say about cases in which the licensing element is an operator other than negation, as in (2):

(1) **No lo veo nunca.**
   Not him I see never
   'I never see him.'
(2) **Pocas personas lo ven nunca.**

Few people him see never

'Few people ever see him.'

I also mentioned that raising N-words at LF does not capture the right scopal interpretation of sentences such as (3):

(3) **No parece haber tomado nunca cerveza.**

Not s/he seems to have had never beer.

'S/he doesn't seem to have ever had beer.'

'*S/he never seems to have had beer.'

Sentence (3) can never have a reading in which the embedded nunca has scope over the matrix clause. The matrix scope of nunca is, however, the reading predicted by an analysis in which N-words raise at LF to the position marked by their licenser. Recall from my discussion of this example in section 2.1.2 that sentence (3) cannot have a reading paraphraseable as 's/he never has the appearance of having had beer', where never would have scope over the matrix predicate.

Similarly, in (4), raising the embedded N-word to the position marked by the matrix negation misses the fact that the scope of the N-word is here lower than the scope of the matrix predicate:
(4) No quiero [que nadie venga].
Not I want that nobody comes
'I want for no x, x to come.'

The above scopal facts have persistently been overlooked, and the LF movement analysis of N-words has prevailed in the literature as the standard approach. Below, I show that the relative scope between N-words and different types of quantified phrases provides positive evidence that an in situ analysis of N-words is superior to one where N-words are predicted to undergo unbounded movement. The evidence that I present involves configurations in which different types of embedded quantifiers in subject position intervene between an instance of negation in a matrix clause and an N-word in the object position of the embedded clause, as in the schema in (5) below:

(5) Neg...[QNP...N-word]

The configuration sketched in (5) might at first sight look like an instance of the weak island for cross-clausal, negative concord construal, since there is a scopal element—a potential intervener—in between the matrix negation and the embedded N-word. I will argue, however, that these types of configurations are never potential weak islands for negative
concord, since no movement is involved. We will see that it is the quantifier/negation interactions across the clause boundary that determine whether the downstairs N-word will or will not be appropriately licensed. As I will show, the scopal interactions between the matrix negation, the intermediate quantifier, and the N-word in the configuration in (5) provide strong evidence that: 1) N-word licensing is better accounted for without movement, and 2) N-words do not have negative semantic content of their own.

3.1.1 Quantifier/negation construals

It is well known that a quantifier intervening between an extracted element and its trace can create a weak island effect (cf. Szabolcsi & Zwarts 1993; Kiss 1993; Cinque 1990; Rizzi 1990; Kroch 1989 among others), as illustrated by the contrast between (6) and (7):¹

(6) *How did few people think that you behaved?
(7) How did Martha think that you behaved?

The sentences in (6) and (7) above illustrate the basic fact that some scopal elements create an island for the extraction

¹Example (6) is from Szabolcsi & Zwarts (1993)
of other phrases. In this section, I investigate the issue of whether the scopal elements that typically create weak islands will also disrupt negative concord.

According to Rizzi (1990), only the traces of non-referential phrases need to be licensed locally (through government rather than through binding). For this reason, it is generally the extraction of non-referential phrases that is sensitive to weak islands, since an operator intervening between the extracted phrase and its trace will disrupt local licensing of the trace by its antecedent. Given that N-words are clearly non-referential, a movement approach to negative concord predicts that a weak island creator that intervenes between two negative concord terms should disrupt the negative concord construal. First, consider sentence (8) below:

(8) *No creo [que menos de dos personas sepan nada.]
I don't believe that fewer than 2 people know nothing
#'I don't believe that fewer than 2 people know anything.'

The sentence above is uninterpretable under the negative concord reading; the postverbal N-word nada is not licensed.²

²An independent negative reading of "nada" is not possible either, since a postverbal N-word can only be construed with the negative concord reading.
It could be argued that the intervening quantified phrase menos de dos personas disrupts negative concord construal between the two relevant negative terms. Under a movement analysis of negative concord, and adopting Rizzi's (1990) theory of Relativized Minimality, the effect illustrated above would, at first sight, follow. Quantifier raising of the intervening QNP subject would, arguably, block extraction of the embedded N-word. In contrast, an approach that treats N-words as negative polarity items interpreted in situ would seem to predict that nada in (8) above should be licensed by the c-commanding, downward entailing operator menos de dos personas ('fewer than two people'). This is because, as the extensive work on negative polarity licensing conducted by Ladusaw (1979) indicates, NPIs are typically licensed by a c-commanding downward entailing operator, as in:

(9) Few of the students know anything about math.

Contrast now (8) with (10) below:

3Recall that downward entailing operators are the ones that license inferences that go downward, from supersets to subsets. Thus, few, for example, is downward entailing, since few people arrived entails few people arrived early. That is, if there are few people in the set of people who arrived, there are also few people in the set of people who arrived early.
(10) No creo [que más de dos personas sepan nada.]

I don't believe that more than 2 people know nothing
'I don't believe that more than 2 people know
anything.'

In (10), a negative concord reading is possible in spite of
the intervening QNP más de dos personas. An account along the
lines of Relativized Minimality does not clearly capture the
contrast between (8) and (10). By minimally changing the
intervening, monotone decreasing quantifier in (8) for a
monotone increasing quantifier in (10), we obtain a completely
different result. Recall that under the Relativized Minimality
approach, any operator that intervenes between a moved element
and its trace counts as a closer potential antecedent for the
trace and, therefore, blocks the government relation between
the trace and its antecedent. Given that sentences (8) and
(10) display exactly the same configuration, there is no clear
explanation for the observed contrast in grammaticality if, in
fact, it is the case that movement of the N-word is involved.
That is, under a movement approach, it is not clear why (8),
but not (10) produces what, at first glance, appears to be a
weak island effect.

It has been claimed (cf. Szabolcsi & Zwarts 1990, 1991)
that only monotone decreasing operators create weak islands.\textsuperscript{4} If the semantic and syntactic characteristics of increasing and decreasing quantifiers were to be formalized in such a way as to predict that only the latter will block a government relation, the contrast between \textup{(8)} and \textup{(10)} could be made consistent with a movement analysis of negative concord. However, a closer look at the meaning of sentences such as \textup{(10)} indicates that an approach to negative concord that requires construal of the lower negative term with the highest one (either via absorption, cf. Zanuttini 1991, Haegeman and Zanuttini 1991; or via negative incorporation, cf. Kayne 1981; Rizzi 1982; Jaeggli 1982) is inappropriate.\textsuperscript{5} If one looks closely at what sentences such as \textup{(10)} mean, it becomes apparent that the intended construal in these sentences is not between \textit{nada} and the matrix negation (a construal that would cross over the intervening QNP subject), but rather the intended construal is that between the matrix negation and the embedded, "intervening", quantified subject. In order to see this, consider the meaning of sentence \textup{(10)} as paraphrased in

\textsuperscript{4}But see Szabolcsi & Zwarts (1993) for counterevidence to this claim.

\textsuperscript{5}Recall that Kayne’s (1981), Rizzi’s (1982), and Jaeggli’s (1982) standard analyses of negative concord posit that the lower negative term adjoins at LF to the clause containing the licensing instance of negation. They assume that N-words in Romance do not have negative content, and that they acquire it by incorporating (in Klima’s 1964 sense) with the licensing negative head. This is what the term incorporation here refers to.
(11): 

(11) No creo [que más de dos personas sepan nada.]
I don't believe that more than 2 people know nothing
'I believe that not more than two people know anything.'

What the paraphrase in (11) reveals is that nada here is not licensed by the matrix negation, as would seem to follow from classical analyses of negative concord. Rather, what seems to be happening is that the matrix negation is associated with the intervening QNP, which, in turn, licenses the N-word in object position. The construal of the matrix negation with the increasing quantified NP más de dos personas yields a downward entailing context that, following Ladusaw's analysis of NPI licensing, licenses nada as a negative polarity item.6,7

Under the explanation sketched out above, the ungrammaticality of sentence (8), repeated here as (12), follows:

6As is well known, negation shifts the entailing properties of the operators that appear within its domain.

7I thank Anna Szabolcsi for discussion of this effect.
(12) *No creo [que menos de dos personas sepan nada.]
I don't believe that fewer than 2 people know nothing
#'I don't believe that fewer than 2 people know anything.'

The "intervening" QNP subject in (12) is downward entailing; thus, construing it with the matrix negation yields an upward entailing context in which the object N-word is not licensed as a negative polarity item. This, and not a movement-island effect, is the source of the uninterpretability of (12).

That the matrix negation is actually changing the entailing properties of the embedded QNP subjects can be clearly tested. It is well known that QNPs such as menos de dos personas are downward entailing. As can be seen in (13) below, the entailment between (a) and (b) goes from a superset (vegetables) to a subset (brussels sprouts):8

8What (13a) and (13b) show is that menos is downward entailing for its second argument. It should be noted that menos is also downward entailing for its first argument, as can be seen in:

i) Menos de dos personas comen verduras.
   Fewer than 2 people eat vegetables.
ii) Menos de dos mujeres comen verduras.
    Fewer than 2 women eat vegetables.

However, since in the examples under consideration the N-words appear within the second argument of the quantifier, what is relevant here is that the quantified phrase is downward entailing with respect to its second argument.
(13)a. Menos de dos personas comen verduras.
   'Fewer than two people eat vegetables.'

   b. Menos de dos personas comen coles de Bruselas.
   'Fewer than two people eat Brussels sprouts.'

Note, however that the entailment is reversed when the quantifier in question is embedded under negation. As can be seen in (14), the entailment from (a) to (b) now runs from a subset (Brussels sprouts) to a superset (vegetables):

(14)a. No creo que menos de dos personas coman coles de Bruselas.
   'I don't believe that fewer than 2 people eat Brussels sprouts.'

   b. No creo que menos de dos personas coman verduras.
   'I don't believe that fewer than 2 people eat vegetables.'

By associating menos de dos personas with negation, the result is an expression with, roughly, the same properties as al menos dos personas ('at least two people'), which is, clearly, upward entailing. It seems to be a sound hypothesis, then, to
say that in a sentence such as (12) above, the negative concord reading of nada is not possible, not because the QNP subject blocks movement of the N-word, but rather because the N-word finds itself in an upward entailing context, that is, in a context that cannot license a negative polarity item. The analysis proposed here predicts that a monoclausal structure in which menos de dos personas is not within the scope of negation will license an object N-word, as in:

(i) Menos de dos personas saben nada del asunto.
   Fewer than 2 people know anything about it.

Although a negative polarity reading of the object N-word is clearly available in (i), the sentence sounds a little awkward to me. For reasons that I do not fully understand at this point, (i) above improves considerably if the subject QNP and the object N-word appear in different clauses:

(ii) Hay menos de dos personas [que sepan nada del asunto]
    There are fewer than 2 people who know anything about it

In any case, the availability of the negative polarity reading of nada above is consistent with my discussion in this section.

Note that, although I am restricting my discussion to examples in which the instance of matrix negation is an overt negative head, the same effect is obtained when there is an N-word in the matrix clause as in (i) and (ii). Recall that, following Laka’s analysis, the preverbal N-word in (i) and (ii) is licensed by an abstract negative head in NegP:

(i) *Nadie cree [que menos de dos personas sepan nada]
    Nobody believes that fewer than 2 people know nothing

(ii) Nadie cree [que más de dos personas sepan nada]
    Nobody believes that more than 2 people know anything
(15) *No creo [que pocas personas sepan nada.]
'I don't believe that few people know nothing.'

(16) No creo [que muchas personas sepan nada.]
'I don't believe that many people know anything.'

(17) No creo [que la mayoría de las personas sepan nada.] 
'I don't believe that most people know anything.'

(15) illustrates construal of the matrix negation with the decreasing quantified NP pocas personas. As predicted, the N-word in object position is not licensed, given that construal of the decreasing quantified subject with the matrix negation yields an upward entailing context that can be paraphrased as "not few people". By contrast, in (16) and (17), the QNP in the embedded subject position is increasing. In the context of negation, muchas personas and la mayoría de las personas yield a downward entailing environment that can license the negative polarity item.

The data discussed in this section reveal that a movement analysis of negative concord is inappropriate. Specifically, raising of the lower N-word, followed by either a process of incorporation or of absorption of the concordant terms makes the wrong prediction with respect to the actual meaning of
sentences such as (11), (16) and (17). Thus, if the effect of having a single contribution of negation by two negative elements (no and nada) in (16), for example, were to be derived by adjoining nada to the matrix clause, or by moving it into [Spec NegP] of the higher clause at LF, then the resulting interpretation would be one in which nada would have wider scope than the QNP muchas personas. That is, the resulting interpretation of (16) would be as in (18):

(18) For no x, I believe that many people know x.

(18) is not the right interpretation for (16), which can be paraphrased as 'I believe that not many people know anything'. As we have seen, it is the context created by the association of the matrix negation with the embedded QNP subject that determines whether an N-word in this domain will be licensed or not. Thus, moving the embedded N-word to the higher clause and outside of the scope of the embedded QNP subject would lead us to miss the contrast between the grammatical and the ungrammatical sentences considered here, and it would predict the wrong interpretation of the grammatical examples.

Importantly, note also that the Negative Criterion as proposed by Zanuttini (1991) and by Haegeman (1992) is flagrantly violated in example (16), for instance, where the matrix negation is not construed via Spec/head agreement with
postverbal nada. Rather the matrix negation is construed with the QNP subject, which in turn has scope over nada. By the same token, the fact that the matrix negation is construed with the quantified subject, and not with the embedded N-word in the object position, shows that there is no absorption (cf. Zanuttini 1991) or incorporation (cf. Rizzi 1982, Jaeggli 1982) of the concordant terms at LF.

3.2 On the non-negative nature of N-words

The discussion in section 3.1.1 makes a clear prediction as to which quantifiers will be found in the Neg...[QNP...N-word] configuration and which ones will not. So far we have seen that a downward entailing QNP, such as menos de dos personas 'fewer than two people', when construed with negation, will yield an upward entailing context that will not license a c-commanded N-word. In contrast, an upward entailing QNP, such as más de dos personas 'more than two people', will yield a downward entailing context when construed with negation, and will, therefore, fit perfectly well in the configuration sketched above.

Let us consider what happens when the embedded subject that intervenes between the matrix negation and the embedded N-word is another N-word, that is, an instance of what
Zanuttini (1991) and Haegeman (1992) consider to be a negative quantifier (with negative content). Given that negation is downward entailing, and bearing in mind the behavior of the quantifiers that we have considered so far, the prediction is that, if N-words are negative quantifiers, they should yield an upward entailing context when construed with negation. A further embedded N-word should thus not be licensed in the created context. As is well known, however, an N-word embedded under negation does not yield an upward entailing context, but rather it produces a familiar negative concord effect, as in (19):

(19) No creo [que nadie sepa nada.]
I don't believe that nobody knows nothing
'I don't believe that anybody knows anything.'

Example (19), thus, is just a typical instance of negative concord. When an example such as (19) is seen in comparison to the examples considered in section 3.1.1, such as (12) and (15) (repeated here as 20 and 21), it becomes apparent that N-words in negative concord languages do not behave the way other downward entailing quantifiers do:
(20) *No creo [que menos de dos personas sepan nada.]
I don't believe that fewer than 2 people know nothing
#'I don't believe that fewer than 2 people know anything.'

(21) *No creo [que pocas personas sepan nada.]
I don't believe that few people know nothing
#'I don't believe that few people know anything.'

Of course, the theory in Zanuttini (1991) and in Haegeman (1992) is designed to deal with cases of negative concord just as the one illustrated in (19). In cases such as (19), they posit that both embedded N-words adjoin to the specifier of the matrix negative head at LF, and that they subsequently undergo factorization, a process similar to quantifier absorption by which the negative content of all of the N-words that are adjoined to [Spec NegP] is factored out and merged. Recall, however, that the claim that negative quantifiers are different from other quantifiers in that they need to raise to [Spec NegP] to satisfy the Negative Criterion has been disproved here (cf. discussion in section 3.1.1). Thus, examples such as (22) below, where the matrix negation is construed with the embedded subject and not with the embedded N-word, point out that the N-word here is not in a Spec/head
relation with the licensing negation:

(22) No creo [que más de dos personas sepan nada.]

    I don’t believe that more than 2 people know nothing
    'I believe that not more than 2 people know
    anything.'

In addition to this problem, as I have already mentioned, moving the N-words to the Spec of the matrix NegP in order to comply with the Negative Criterion would produce the wrong meaning of sentences such as (22) (where the N-word has lower scope than the embedded, QNP subject). Sentence (19) above should be seen instead as an instance of multiple negative polarity licensing. Recall that in clear cases of negative polarity licensing, a negative head can license more than one NPI via c-command, as in the English example below:

(23) I didn’t give anything to anybody.

The effect observed in (19), whereby only one instance of negation is contributed to the meaning of the sentence is due to the fact that the only element with intrinsic negative content in (19) is the negative head. Neither of the two N-words in (19) has negative content of its own. Thus, contrary to what the analyses of Rizzi (1982), Zanuttini (1991), and
Haegeman (1992) propose, no special mechanism, such as negative incorporation or negative quantifier absorption/factorization, needs to be postulated in order to account for this simple fact.

3.3 Conclusion

In this section, I have discussed some data involving negative concord structures in which a quantified subject intervenes between a matrix instance of negation and a postverbal N-word in the embedded clause (Neg...[QNP...N-word]). In these structures, the acceptability of the postverbal N-word changes as the monotonicity properties of its c-command domain are altered--due to the interaction of the QNP subject with the matrix negation. This fact in itself points out the polarity nature of N-words. In addition, the core data discussed here points to an in situ analysis of negative concord. An analysis of negative concord in terms of movement of the N-words to [Spec NegP] makes the wrong prediction with respect to the actual interpretation of the data. We saw also that the quantifier/negation interactions in the analyzed data reveal that in negative concord, the concordant terms are not syntactically construed via incorporation, absorption, or Spec/head agreement. Two of the
separate empirical facts demonstrated here, namely, that N-words don’t move, and that they are not subject to the Negative Criterion, point to the conclusion that N-words are not negative operators, and that they are better interpreted as NPIs in situ.

Before I finish this discussion, however, I need to point out some problematic data showing that, even though the data discussed in the previous section points toward a non-movement analysis of N-words in Romance, it is not clear that downward entailment is a sufficient condition for the licensing of N-words. More research needs to be done in this area.

3.4 Negation and the universal quantifier

I note here the recalcitrant behavior of the universal quantifier with respect to the licensing of N-words in its scope domain. As is well-known, the universal quantifier has upward entailing properties for its second argument. Accordingly, when it is embedded under a matrix negation the result is a downward entailing environment, as can be seen in (24) below (where the entailment from (a) to (b) goes from the superset of vegetables to the subset of Brussels sprouts):
(24)a. No creo [que todo el mundo coma verduras.]
    I don't believe that everybody eats vegetables
    'I don't believe that everybody eats vegetables.'

b. No creo [que todo el mundo coma coles de Bruselas.]
    I don't believe that everybody eats Brussels sprouts
    'I don't believe that everybody eats Brussels sprouts.'

(24) shows that todo el mundo displays the expected behavior under negation in that its inherent entailing properties are shifted. However, my judgements indicate that the downward entailing environment that is created when the universal quantifier is embedded under negation is not sufficient to license an N-word in its scope, as in (25):

(25) *No creo [que todo el mundo sepa nada]
    I don't believe that everybody knows nothing
    '#I don't believe that everybody knows anything.'

Ladusaw's (1979, 1980) theory of negative polarity licensing in terms of downward entailments does not account for the inconsistent behavior of the universal quantifier with
respect to the other quantifiers that we have seen. Note that the **IMMEDIATE SCOPE CONSTRAINT** of Linebarger (1981, 1987) does not explain the effect in (25), given that in all the good examples considered in section (3.1.1), the embedded N-word is not in the immediate scope of the matrix negation either. Crucially, the embedded N-word in these good sentences appears in the licensing environment produced by the association of the matrix negation with an upward entailing quantifier. (25) should be just as good as, for example, (22) above, repeated here as (26):

(26) **No creo [que más de dos personas sepan nada].**

I don't believe that more than 2 people know nothing

'I don't believe that more than 2 people know anything.'

What is important to note, however, is that the puzzling piece of data in (25) above does not disprove the main argument presented here, namely that negative concord in Romance should not be analyzed as an instance of movement to the Specifier of a negative head and that, therefore, N-words are not licensed via LF-movement. What the sentence in (25) points out is that the issue of defining the specific, semantic environment in which N-words, and negative polarity items in general, are appropriately licensed still needs fine
tuning. Thus, downward entailment might be just one of the necessary conditions for NPI licensing.¹¹

3.5 Summary

In the previous sections, I have presented data that, I argue, prove to be rather revealing both for determining the semantic content of N-words and for determining the appropriate LF representation of negative concord structures. Specifically, I argued that N-words are negative polarity items and that postverbal N-words are interpreted in situ rather than via movement at LF (contra Kayne 1981, Rizzi 1982, Jaeggli 1982, Zanuttini 1991, Haegeman 1992, Bosque 1992, among others). In arguing that N-words are negative polarity items, I have offered additional, empirical support to the analyses presented by Bosque (1980) and Laka (1990). Neither Bosque (1980) nor Laka (1990), however, provide empirical evidence bearing on the issue of whether N-words are interpreted in situ. In fact, their analyses can be made compatible with a movement approach of postverbal N-words (as Bosque 1992 does).

Interestingly, although a lot of discussion has centered

¹¹See Kadmon and Landman (1993) and Lee and Horn (1994) for more recent approaches to the issue of NPI licensing.
on whether N-words are quantificational or whether they are nonquantificational polarity items, the issue of whether N-words move in order to be licensed has not been considered rigorously enough in the literature. Thus, while various authors have provided very explicit arguments in favor of a movement analysis of N-words (cf. Longobardi 1991, Bosque 1992, Moritz and Valois 1992, 1994), no serious consideration has been given so far to the alternative that N-words can be interpreted in situ. Here I have shown that there are numerous scopal and interpretational facts that follow naturally from an in situ analysis of N-words but that are not consistent with a movement approach. Nevertheless, the arguments that one finds in the literature in support of the claim that N-words are licensed via movement are rather appealing and, at first glance, convincing, since they are grounded on well established diagnostics for movement, such as sensitivity to strong islands (although see Cinque 1990). Given that the movement approach to N-word licensing is the one has been most extensively argued for and is, therefore, the one that is most widely accepted, I cannot present a convincing picture of in situ N-word licensing without confronting the large amount of empirical arguments that have been put forward in favor of the claim that N-words move.12

12Recall that in chapter 2, I already discussed and discarded the quantifier raising analysis that Kayne (1981), Rizzi (1982) and Jaeggli (1982) propose on the basis of the
In the next section, I show that many of the effects that have been used to support the movement approach to N-word licensing can be explained on independent grounds without the need to adopt the position that N-words move at LF. Specifically, I discuss the evidence analyzed by Longobardi (1991) for Italian and by Moritz and Valois (1992, 1994) for French, and I consider how their evidence fares when the same types of effects that they discuss are tested in Spanish.

3.6 Against a movement approach to negative concord

Here, I supply detailed arguments showing that the syntactic evidence that has been used in support of the movement analysis of negative concord is inconclusive and, in some cases, flawed. I show that the same data is better explained by a non-movement analysis of N-words that views them as items subject to polarity conditions. I will begin by discussing Longobardi's (1991) evidence and then I will discuss the arguments presented by Moritz and Valois (1992, 1994).

alleged subject/object asymmetry effects that long distance negative concord displays. As I pointed out, these subject/object asymmetries are not consistent across French speakers (cf. Moritz and Valois 1994) and, as far as I can report, do not obtain in Spanish, Italian, or Catalan (judgements by Jaeggli (1982), Rizzi (1982), and Picallo (1984) notwithstanding.)
3.6.1 Island effects: Longobardi (1991)

Longobardi (1991) considers N-words in negative contexts to be negative quantifiers. He claims that the preverbal negative element that obligatorily cooccurs with postverbal N-words acts as a scope marker for the latter. Longobardi argues that the scope assignment rules that apply to N-words resemble syntactic Wh-movement in that they seem to be unbounded and in that, according to him, they show island effects.

The idea that the scope of N-words is unbounded derives from the traditional analyses of negative concord across the clause boundary. Thus, in sentences such as (27) below, negative words have been traditionally analyzed (cf. Kayne 1981, Rizzi 1982, Jaeggli 1982, among others) as having wider scope that the minimal clause containing them at S-Structure.

(27) No quiero [que venga nadie].
    Not I want that comes nobody
    'I do not want anybody to come.'

Longobardi, following previous analyses of negative concord, posits that the scope of N-words in these types of configurations is determined by the position of the negative marker. Under Longobardi's view, the embedded N-word in (27)
moves at LF to the position marked by the matrix negative
marker and thus acquires matrix scope. Longobardi’s movement
approach to the interpretation of negative concord structures
is based on empirical data showing that concordant N-words
display the same sensitivity to island constraints as Wh-words
do. If, as I pointed out above and contrary to Longobardi’s
claims, it is not the case that N-words move in the syntax,
the island effects that Longobardi discusses need some
explanation. I now turn to this issue.

3.6.1.1 The Complex Noun Phrase Constraint

Longobardi offers sentences such as (28) to show that
what he refers to as the rule assigning wide scope to nessuno-
—or the negative concord effect—-is constrained by the Complex
Noun Phrase Constraint (CNPC): 13

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13 The CNPC, discovered by Ross (1967), makes reference to
contrasts such as that in (i) and (ii). As (ii) illustrates,
a Wh-phrase cannot be extracted out of a complex NP, that is,
an NP whose head takes a sentential complement:

(i) Who did Tom claim \[cp \text{ that he saw } t_i \text{ last week}\]?
(ii) *Who did Tom make \[cp \text{ the claim } [cp \text{ that he saw } t_i \text{ last week?}]\]
(28) *Non approveri [la tua proposta [di vedere nessuno]]

Not I will approve your proposal to see noone
# 'I will not approve your proposal to see anyone.'

Note, however, that negative polarity items in English are also subject to the same effect. Thus, for example, the English gloss for (28) above is also ungrammatical. In fact, this type of effect was discussed and explained by Ladusaw (1979) for similar English examples containing negative polarity items. Following Ladusaw's (1979) line of argumentation, I claim that the key to the ungrammaticality of examples such as (28) above lies in the high specificity of the complex NP. This is because the specificity of the NP la tua proposta di vedere nessuno 'your proposal to see anyone/no one' requires the wide scope of the NP over negation. Once the whole NP that contains nessuno is assigned wider scope that the matrix negation, the polarity requirements of nessuno will not be satisfied, since nessuno will, by necessity, be outside of the scope of its negative licenser. This is illustrated in (29):

\[14\text{Discussion to this effect can be found in chapter IX of Ladusaw (1979). Here, Ladusaw provides independent explanations for some claims found in Ross (1976), Baker (1970), and Fauconnier (1975) that negative polarity licensing in English is subject to some island constraints, such as the complex noun phrase constraint.}\]
The ungrammaticality of (28) above can thus be explained without making reference to the CNPC, if it is assumed that items like nessuno are more like negative polarity items than like negative quantifiers. Recall that, in the previous chapter, I proposed a similar account for the inability of negative concord to obtain across indicative clauses. There, I reviewed the well known fact that long distance negative concord is only possible across subjunctive clauses, and I suggested that this subjunctive/indicative contrast might arise as a consequence of the difference in presuppositionality that indicative and subjunctive complements display. Specifically, I argued that the presuppositionality of indicative complements dictates that they take scope outside of the matrix negation. An N-word contained within an indicative complement will, thus, be taken
outside of the domain of negation and, consequently, it will be left unlicensed. This was exemplified in figure (49) of chapter 2, repeated here as (30):

```
IP
  CPj
    ... N-word

IP
  Not...
  VP
    V
    t_j
```

Given that the notions of specificity and presuppositionality are closely related, adopting a clause raising analysis for the indicative cases and a DP raising analysis for the specific DP cases provides a unified account of different phenomena that, at first glance, might appear to be disparate, but that turn out to have a lot in common upon closer inspection.

3.6.1.2 The Relative Clause Island

Longobardi also claims that N-words are sensitive to extraction out of relative clauses. However, I find that in Spanish, negative concord construal is possible across a
relative clause as long as the relative clause is in the subjunctive mood:¹⁵

(31) Nunca he conocido [a un entomólogo [que sepa-SUB nada de sintaxis].
'I have never met an entomologist who knows anything about syntax.'

Interestingly, the English gloss for (31) is also grammatical. What is crucial in the interpretation of the NP object (both in the Spanish example and in the English gloss) is that it cannot be interpreted with the so-called de re reading (or the wide scope reading), by which we would be referring to one particular entomologist who we know happens

¹⁵As is well known, and as I discussed in section (2.1.5), crossclausal negative concord is generally possible across subjunctive clauses, but not across indicative clauses (cf. Rivero 1971 and Laka 1990, among others). As has been pointed out by Arnáiz (1993), N-word licensing and overt Wh-movement already differ in that whereas Wh-movement is unbounded across indicative and subjunctive clauses alike, N-word licensing is generally only possible across subjunctive clauses. This fact in and of itself weakens Longobardi's claim that the rule that construe negative terms together is subject to the same constraints as Wh-movement. In any case, in constructing examples such as (28), that purport to test negative concord sensitivity to island constraints, one has to make sure that the island containing the N-word to be licensed is in the subjunctive mood, since N-words are generally not licensed across indicative clauses, even in non island configurations.
to be familiarized with syntax. Given that the de re reading (the one corresponding to one particular entomologist in 31) is traditionally associated with the wide scope reading (cf. Neale 1990), it should come as no surprise that the object NP in (31) is uninterpretable with the de re reading. This is because, if the whole NP is assigned wide scope, the N-word that it contains will be taken outside of the scope of the matrix negation and will, thus, be left unlicensed.

As I have pointed out, Spanish examples such as (31) are grammatical only when the relative clause is in the subjunctive mood, and they are ungrammatical when the relative clause is indicative, as in (32):

(32) *Nunca he conocido [\text{a un entomólogo [\text{que sabe-IND nada de sintaxis}]}].

I have never met an entomologist who knows nothing about syntax

# 'I have never met an entomologist who knows anything about syntax.'

16 The de re and de dicto readings of NPs are roughly equivalent to the notions of presupposed and nonpresupposed interpretations. In the Russellian tradition (cf. Russell 1905, Smullyan 1948, Kripke 1972, Neale 1990), the so-called de re/de dicto distinction is seen as a product of scope permutation. See Neale (1990) for an extensive discussion of the Russellian view and for arguments of why the de re/de dicto ambiguity should be seen in terms of scope.

17 This argument follows under the assumption that N-words are negative polarity items.
I argue here that the effect pointed out above is due to the fact that the indicative mood in a relative clause imposes the wide scope reading on the whole complex NP. Thus, for example, sentence (33) below, where the relative clause is indicative, has only the interpretation in which the complex NP object has a wide scope reading:\(^{18}\)

\begin{flushright}
(33) No he conocido \_\_ un entomólogo \_\_ sabe-IND sintaxis.]
\end{flushright}

Not I have met an entomologist who knows syntax.
'I have not met an entomologist who knows syntax.'

In (33), the object NP refers to one particular entomologist who we know happens to know syntax. In (34), however, which differs from (33) only in that the relative clause is here in the subjunctive mood, the only available reading is one in which the existence of an entomologist who knows syntax is not presupposed; in fact, this sentence is compatible with a situation in which such an entomologist does not exist:\(^{19}\)

\(^{18}\)Note that the relative clause here does not (and, in fact, cannot) contain an N-Word.

\(^{19}\)This is related to the discussion in Farkas (1985), where she claims that, in Romanian, only what she calls intensional NPs may have subjunctive relatives. Although she does not discuss negative contexts, she points out that when the relative clause of an intensional NP is subjunctive, the NP is unambiguously interpreted within the scope of the
(34) No he conocido [a un entomólogo [ç que sepa-SUB sintaxis.]]

Not I have met an entomologist who knows syntax.
'I have not met an entomologist who knows syntax.'

Interestingly, the example in (31) above—where the relative clause contains an N-word—is also grammatical if the object NP is introduced by a definite article, as long as the relative clause stays in the subjunctive mood, as in (35):

(35) No he conocido [al entomólogo [ç que sepa-SUB nada de sintaxis].

'I have not met the entomologist who knows anything about syntax.'

Crucially, the subjunctive mood of the relative clause blocks the wide scope reading for the complex NP. The only possible reading for the object in (35) is one in which the existence of such an entomologist is not presupposed (the narrow scope reading). Note that the same is true for the equivalent English sentence. (36) only has the narrow scope reading of intensional predicate, that is, with the so-called de dicto reading.
the object NP.\textsuperscript{20} By contrast, (37), where the relative clause does not contain a negative polarity item, is ambiguous between the wide and narrow scope readings of the object:\textsuperscript{21}

(36) I have never met \([_{\text{NP}}\text{the entomologist} \ [_{\text{CP}}\text{who knows anything about syntax.}]])\) (unambiguously narrow scope)

(37) I have never met \([_{\text{NP}}\text{the entomologist} \ [_{\text{CP}}\text{who knows syntax.}]])\) (ambiguous)

Following the Russelian tradition, I assume that de re readings arise as a consequence of wide scope assignment. As the contrast between the Spanish subjunctive and indicative

\textsuperscript{20}I thank Andy Barss for bringing this point to my attention.

\textsuperscript{21}The two readings that the object has in (37) are grammaticalized in Spanish by the use of either the subjunctive or the indicative in the relative clause. The interpretation of (37) in which the object has a wide scope reading corresponds to (i) below, where the relative clause is indicative. In turn, the interpretation of (37) in which the object displays the narrow scope reading corresponds to (ii), where the relative clause is subjunctive.

(i) No he conocido \([_{\text{NP}}\text{al entomólogo} \ [_{\text{CP}}\text{que sabe-IND sintaxis.}]])\) \(\text{‘I haven’t met the entomologist who knows syntax.’}\)

(ii) No he conocido \([_{\text{NP}}\text{al entomólogo} \ [_{\text{CP}}\text{que sepa-SUB sintaxis.}]])\) \(\text{‘I haven’t met the entomologist who knows syntax.’}\)
pairs just reviewed indicates, subjunctive relative clauses do not allow the de re reading (or the wide scope reading) of the NP they are part of.\textsuperscript{22} An N-word contained within a subjunctive relative clause will, thus, stay within the scope of a matrix negation, if there is one. Indicative relative clauses, on the contrary, impose the de re (or wide scope reading) of the NP. Therefore, an N-word that is contained within an indicative relative clause will not be licensed by a matrix negation, due to the fact that it will be scoped out of the matrix clause at LF. This explains why negative concord is possible across relative clauses only when the relative clause is subjunctive.\textsuperscript{23}

Coming back to Longobardi's argument that N-words are sensitive to extraction out of relative clauses, it becomes

\textsuperscript{22}This is related to the presuppositionality versus non-presuppositionality of indicative and subjunctive clauses, respectively, that I have already reviewed in section (2.1.5.2), in my discussion of the indicative/subjunctive contrast with respect to the licensing of negative concord across complement clauses.

\textsuperscript{23}The reason why subjunctive relative clauses impose the narrow scope reading on the whole NP might be related to the tense dependency, discussed by Kempchinsky (1986), between embedded, subjunctive clauses and the matrix clause. If this were to be the case, the independent licensing requirements of subjunctive morphology would force the relative clause, and, possibly, the whole complex NP to remain under the scope of the matrix clause, thus deriving the de dicto reading of the NP. In relation to this point, see Abush (1988) for a discussion of the interrelationship of the de re/de dicto readings of noun phrases containing a relative clause and certain tense dependencies between the relative clause and the matrix clause in English.
clear that his characterization of the facts is too narrow. As I have just shown, negative concord displays no island violation effects across relative clauses, providing that the relative clause is subjunctive. Independent factors, having to do with the scopal interpretation of noun phrases, determine whether an N-word will or will not be licensed within a relative clause. The judgements on the English data discussed above confirm that there is a close relationship between the scopal interpretation of NPs and the possibility of negative polarity licensing. Importantly, note that, while I offered an independent explanation for the cases in which negative concord produces what appears to be a relative island violation (the indicative cases), the movement approach that Longobardi defends simply makes the wrong prediction for the cases in which negative concord yields grammatical results across a relative island (the subjunctive cases). No such indicative/subjunctive contrast is found in instances of Wh-movement. Wh-movement is not possible across relative clauses, independently of the mood of the relative clause. This fact is illustrated below, where (38) contains an indicative relative clause and (39) a subjunctive relative clause.
I conclude, then, that negative concord licensing across relative clauses does not resemble Wh-movement in these types of structures.

3.6.1.3 CED effects

Other syntactic island effects that Longobardi discusses are Condition on Extraction Domain (CED) effects (cf. Huang 1982) such as the Subject Condition (and the Sentential Subject Condition), as in: 24

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24 As the example below illustrates, extraction out of the domain of a subject is generally precluded:

(i) *What_{t_i} would [for you to lose t_{i}] be a pity?
Under Longombardi's analysis of N-words, the sentences above are ungrammatical because the negative quantifier nessuno has to take scope by raising out of the DP and CP in which it is contained in (40) and (41), respectively, and by adjoining to the matrix clause. The ungrammaticality of (40) and (41) above, however, can be explained without the need to appeal to the extraction of nessuno out of the domain of a subject. Thus, under the view that N-words are more like NPIs than like negative quantifiers, one can argue that (40) and (41) are ungrammatical because neither of those sentences provides a c-commanding licensor for the N-word. Therefore, the status of (40) and (41) above does nothing to show that negative concord is sensitive to movement constraints. Note that the corresponding sentences in which the N-words contained within the DP and CP subjects of (40) and (41) appear in a position c-commanded by an overt sentential negation are grammatical:25

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25 As Andrew Barss has pointed out to me, sentences (40) and (41) suggest that preverbal N-words need to comply with the strong licensing requirement of being in a Spec/
(42) Non é stata invitata [la moglie di nessuno.]
Not has been invited the wife of nobody
'It hasn't been invited anybody's wife.'

(43) Non sarà possibile [chiamare nessuno.]
Not will be possible to call no one
'It won't be possible to call anyone.'

The same effect obtains in Spanish, as the contrast between the following pairs of sentences indicates:

(44) *[La mujer de nadie] ha sido invitada.
The wife of nobody has been invited

(45) No ha sido invitada [la mujer de nadie.]
Not has been invited the wife of nobody
'It has not been invited anybody's wife.'

Agreement configuration with a negative head, as opposed to just being c-commanded by it. This seems to be the case if it is assumed that the DP and CP subjects containing the N-words in (40) and (41) are in Spec NegP. If such is the case, the abstract head of NegP c-commands everything within the DP and the CP subjects. Yet, the N-words are left unlicensed. First, let me point out that, given that the DP and CP subjects in (40) and (41) are not themselves N-words (even though they both contain an N-word), it is not clear that they occupy Spec NegP. Assuming the possibility that they do occupy Spec NegP, it is possible that preverbal N-words need to be in Spec/head agreement with the abstract head of NegP in order to license the negative projection. That is, it is the Spec/Head agreement relationship that activates the abstract negative head.
Contrary to what one might think, the grammatical examples in (45) through (47) are grammatical not because of the postverbal position of the subjects, but because the N-phrases contained in them are c-commanded by sentential negation. Interestingly, note that leaving a DP subject of the characteristics of the one in (45), for example, in postverbal position does not make extraction of a Wh-phrase out of it possible. Thus, consider sentence (48):

(48) *De quién, (no) ha sido invitada [la mujer t_i?]

Of whom, (not) has been invited the wife t_i?

'Whose wife has (not) been invited?'

A comparison between (45) and (48) reveals that the grammaticality of (45) is not consistent with the assumption that negative concord construal is subject to the same constraints as wh-movement. If such were the case, whatever rules out sentence (48) should also block negative concord
construal in (45). The grammaticality of (45) can, thus, not be due to the position of the DP containing the N-word, since, as (48) shows, overt extraction of a Wh-phrase is ruled out in such a configuration. The status of (45) must then be due to the fact that the N-word is here c-commanded by a licensor.

To the above discussion, it should also be added that the immunity of negative concord to CED effects can also be observed in examples like (49), where no sensitivity to the adjunct condition is displayed:

(49) \text{No cumplió con su deber [para ayudar a nadie.]}

Not did his duty in order to help nobody

'He did not do his duty in order to help anybody.'

Crucially, the reading in which negative concord is possible for sentences like (49) above is the one in which the adjunct clause is within the scope of the matrix negation. Note that, as we would expect, the corresponding wh-extraction structure yields an ungrammatical result:

(50) *A quién cumplió con su deber [para ayudar tí]?

Who did he did his duty in order to help tí?

To sum up, the data discussed here indicate that there is no evidence to the claim that negative concord involves a
syntactic rule that assigns wide scope to negative words. On the one hand, as I showed, the island effects that Longobardi discusses can be explained on independent grounds. On the other hand, there are some data, such as the cases in which negative concord is possible across subjunctive relative clauses and across adjunct clauses, that are simply incompatible with the unbounded movement approach. I conclude, then, that contrary to what Longobardi argues, negative concord construal does not resemble Wh-movement with respect to Wh-island sensitivity.

3.6.2 More on the syntactic movement of N-words: Moritz and Valois (1992, 1994)

In addition to the classical strong island arguments that Longobardi advances, there is a recent proposal by Moritz and Valois (1992, 1994) in which some new and appealing evidence is presented in favor of the movement approach. Because of its unprecedence and its appeal, Moritz and Valois's evidence needs to be given some serious consideration before the movement analysis of N-word licensing can definitely be discarded.

Moritz and Valois (1992, 1994) argue in favor of the movement approach to negative concord on the basis of the
behavior of personne 'nobody' in French. Specifically, they argue that personne, as well as other negative phrases, moves to Spec NegP at LF. They point out that, just as Longobardi (1991) shows that the distribution of N-words in Italian is subject to strong islands, the distribution of personne is also restricted by the CNP, as well as by CED constraints such as the Subject Condition. In the previous section, I already pointed out how the data portraying putative violations of the subject condition and the complex noun phrase condition have an explanation that is independent of a movement analysis of N-words at LF. But, in addition, there are reasons to believe that there is a serious flaw in the line of argumentation pursued by Longobardi and by Moritz and Valois in their explanation of the apparent Subject and Complex Noun Phrase violations that negative phrases incur. Namely, as the sentence in (51) below shows, LF movement of quantified phrases is possible out of both sentential subjects and complex noun phrases. Thus, the phrase many of the articles can have a wide scope reading, even though it is contained within a factive, sentential subject, complex noun phrase. The wide scope interpretation of the quantified phrase is captured by the paraphrase in (51'):\textsuperscript{26}

\textsuperscript{26}Example (51) is from Lasnik (1972).
The fact that many of these articles were published amazes me.

There are many of these articles such that the fact that they were published amazes me.

If, as Longobardi and Moritz and Valois argue, N-words are quantifier-like in that they move at LF, it needs to be explained why their distribution is not always consistent with that of other scope taking phrases, as the comparison between (51) and (41), repeated here as (52), reveals:

*Chiamare nessuno] sarà possibile.

To call nobody will be possible.

Thus, not only can the apparent subject and CNP constraint violations produced by N-phrases be explained in accordance with a non movement approach (as I did in the previous sections) but, in addition, the behavior of N-phrases in these types of configurations is inconsistent with that of other phrases that, arguably, move at LF. In short, while overt movement of Wh-phrases is barred from subjects and complex noun phrases, the LF movement possibilities out of these

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Recall that Longobardi explains the ungrammaticality of (52) by claiming that quantifier raising of nessuno here violates the sentential subject constraint.
structures is greater, as the behavior of the quantified phrase in (51) shows. This point highlights the flawed line of argumentation pursued by Longobardi and Moritz and Valois in comparing LF construal effects to the effects produced by overt Wh-movement. As is well known, LF operations, such as QR, are not constrained in the same way as overt movement operations (c.f. Huang 1982, among others). Thus, if, in fact, it were to be the case that the interpretation of personne and other N--phrases is mediated by movement at LF, their syntactic behavior should be compared to that of items that move in the non-overt syntax.

To the syntactic arguments presented by Longobardi, Moritz and Valois adduce some additional evidence in support of their claim that negative phrases move at LF. For example, they claim that negative concord is subject to the thematic hierarchy constraint, which has been shown to regulate Wh-extraction out of DPs. The same argument is also carried over into Spanish by Bosque (1992) in his defense of the movement analysis of N-words. In section (3.6.2.1), I will test the thematic hierarchy effect on a more ample set of data than does Bosque, and I will conclude that the hierarchy effect is not what sometimes blocks negative concord construal out of DPs.
subject to. Additionally, I will show that the so-called thematic hierarchy effect is not purely syntactic, and, insofar as N-phrases are subject to it, this effect can be explained on independent grounds that do not require movement of the N-phrases themselves.

3.6.2.1 The thematic hierarchy effect on N-word licensing

It has been argued by Cinque (1980), Torrego (1986), Valois (1991), and others, that Wh-movement out of DPs in Romance must respect the thematic hierarchy possessor > agent > theme. The consequence of this is that only the highest hierarchical argument can be extracted out of a DP. This effect is illustrated by (53), (54), and (55). In (53), extraction of the theme argument in the presence of an agent yields a bad result. Similarly, extraction of a theme/agent in the presence of a possessor in (54) also produces a deviant result. In contrast, Moritz and Valois judge that (55) is grammatical due to the fact that the relativized phrase is here the highest argument within the object DP:

\[ \text{These examples correspond to examples (49a), (49c), and (51b) in Moritz and Valois (1994).} \]
(53) *L'home dont Claude a vu [DP la photo t_{i(theme)} du photographe_{agent}.]

The man of whom Claude has seen the picture of the photographer.
'The man whose picture by the photographer Claude saw.'

(54) *Le photographe dont Gustave a vu [DP la photo t_{i(agent/theme)} de ce collectionneur_{possessor}.]

The photographer of whom Gustave has seen the picture of this collector.
'The photographer of whom Gustave saw this collector's picture.'

(55) Le collectionneur dont Jules a vu [DP la photo de ce photographe_{agent} t_{i(possessor)}]

The collector of whom Jules has seen the picture of this photographer.
'The collector whose picture by this photographer Jules saw.'

Moritz and Valois's point regarding the distribution of personne is illustrated by sentences (56), (57), and (58), where it seems that personne is subject to the same hierarchy constraint that Wh-traces are subject to:
(56) *Claude n’a vu [dp la photo de personne(theme) du
photographe(agent).]
Claude neg-has seen the picture of nobody of the
photographer.
‘Claude did not see the photographers’s picture of
anybody.’

(57) *Gustave n’a vu [dp la photo de personne(agent/theme) de
collectionneur(possession).]
Gustave neg-has seen the picture of nobody of this
collector.
‘Gustave did not see this collector’s picture of
anybody.’

(58) Jules n’a vu [dp la photo de ce photographe(agent) de
personne(possession).]
Jules neg-has seen the picture of this photographer
of nobody
‘Jules did not see anybody’s picture of this
photographer.’

In (56), personne has the role of theme in a DP which also
contains an agent. According to Moritz and Valois, the
ungrammaticality of (56) follows if it is postulated that
personne is extracted out of the DP at LF. Similarly, in (57),
personne, an agent (or a theme), is also allegedly extracted in the presence of a higher argument, namely a possessor, thus producing an ungrammatical result. In contrast, sentence (58), where personne is the possessor (the highest argument within the DP) is given grammatical status by Moritz and Valois.

Moritz and Valois's judgements on the status of (53) and (54), and (56) and (57) carry over to Spanish, where, as examples (59) through (62) indicate, both Wh-extraction and N-word distribution seem to be sensitive to the hierarchy constraint:

\[(59) \text{De quién ha visto Claudio [DP la foto t}_1(\text{theme}) \text{ del fotógrafo}_2(\text{agent})?}\]

Of whom has seen Claudio the picture of the photographer?

'Whose picture by the photographer did Claudio see?'

\[\text{In (59) and (60), I use Wh-extraction in questions as opposed to relativized phrases as Moritz and Valois do for French. The reason for this is that the process of relativization in Spanish is not exactly parallel to relativization in French, and this might affect the judgements. Thus, the possessive relative pronoun cuyo in Spanish resembles whose in English, whereas the possessive relative pronoun in French behaves slightly differently:}\]

\[(59) \text{El autor [cuyos libros admiro.] } \text{(Spanish)}\]

'The author whose books I admire.'

\[(60) \text{L'auteur [dont j'admiere les livres.] } \text{(French)}\]

'The author of whom I admire the books.'
(60) *De qué fotógrafo\(_1\) ha visto Gustavo [\(\text{DP la foto} \text{ t}_1(\text{agent})\) de este coleccionista(\(\text{pos}\))\(\text{?}\)]
Of which photographer has Gustavo seen the picture of this collector?
‘Whose photographer’s picture of this collector’s has Gustavo seen?’

(61) *Claudio no ha visto [\(\text{DP la foto de nadie(\text{theme}) del fotógrafo(\text{agent})}\)]
Claude has not seen the picture of nobody of the photographer.
‘Claude has not seen the photographer’s picture of anybody.’

(62) *Gustavo no ha visto [\(\text{DP la foto de nadie(\text{agent/theme}) de este coleccionista(\text{pos})}\)]
Gustavo has not seen the picture of nobody of this collector
‘Gustavo has not seen this collector’s picture of anybody.’

In (59) through (62), the wh-traces and the N-phrases have a lower thematic role than the other arguments contained within the same DP. The status of these examples is, hence, compatible with Moritz and Valois’s arguments. However, it
seems to me that extraction out of DPs is more restricted than the hierarchy constraint predicts. Thus, Moritz and Valois's judgements for (55) and (58) do not carry over to Spanish, as the strikingly ungrammatical status of (63) and (64) indicates:

(63) *De qué coleccionista ha visto Julio [DP la foto de este fotógrafo (agent) t_1 (possessor)]?
Of what collector has Julio seen the picture by this photographer?
'Whose collector's picture by this photographer has Julio seen?'

(64) *Julio no ha visto [DP la foto de este fotógrafo (agent) de nadie (possessor)].
Julio has not seen the picture of this photographer of nobody
'Julio has not seen anybody's picture by this photographer.'

Both the Wh-phrase and the N-phrase in (63) and (64), respectively, constitute the highest arguments within the object DP. Yet, Wh-movement and negative concord construal of the possessor argument are blocked in each case. What this indicates is that the hierarchy constraint is too weak to
correctly predict the ungrammaticality of (63) and (64). An independent explanation is needed if we are to account for the whole range of data illustrated by (59) through (64).

3.6.2.2.1 Can the thematic hierarchy effect be subsumed under the specificity effect?

I will defend the position that the effects discussed above are not exclusively syntactic in nature. Thus, for example, it is important to note that the DPs chosen by Moritz and Valois in (56) and (57) to adduce evidence for the operativeness of the hierarchy constraint are highly specific, and this biases the sentences towards ungrammaticality independently of any possible hierarchy effects. (56) and (57) are repeated below as (65) and (66):

(65) *Claude n'a vu [_{dp} la photo de personne_{theme} du photographe_{agent}] .
Claude neg-has seen the picture of nobody of the photographer.
'Claude did not see the photographers's picture of anybody.'
Thus, note that not only are both DPs introduced by a definite article, but, in addition, both the agent in (65) and the possessor in (66) are highly specific—the agent in (65) is introduced by a definite article and the possessor in (66) is introduced by a demonstrative. All of this contributes to turning the DP objects in (65) and (66) into specificity islands, i.e. \textit{la photo du photographe} 'the photographer's picture' in (65) and \textit{la photo de ce collectionneur} 'this collector's picture' in (66), and this might be what is at the core of the thematic hierarchy effect to which Moritz and Valois attribute the ungrammaticality of the sentences above.\(^{31}\) That it is the specificity of the DPs that prevents the licensing of the N-phrases in (65) and (66) follows if we assume that \textit{personne} is an item subject to polarity licensing requirements and that specific DPs take wider scope than negation in order to be interpreted. Thus, if the specific DPs

\(^{31}\)The relationship between the thematic hierarchy constraint and the specificity effect has been noted by Torrego (1988).
containing personne in (65) and (66) raise above negation at LF, personne will no longer be within the scope of negation at the relevant level at which its polarity requirements need to be met.\textsuperscript{32} Hence, raising of the specific DP containing personne, and not necessarily movement of personne itself, is the key to the ungrammaticality of (65) and (66) above.\textsuperscript{33} This analysis would still allow us to account for the ungrammatical examples involving Wh-movement, for it is known that specific DPs are islands for movement.\textsuperscript{34}

A crucial point is that if the specificity of the DPs is what is relevant to rule out sentences (65) and (66), then the impossibility of negative concord construal in (64) (repeated below as (67)) will follow. Recall that in this sentence (which corresponds to the French example in (58)), the N-phrase carries the thematic role of possessor, and it occurs

\textsuperscript{32}For arguments that LF is the relevant level for negative polarity licensing, see Uribe-Etxebarria (1994). This view is consistent with recent theoretical developments (cf. Chomsky's 1993 Minimalist Program) in which the only levels of representation are PF and LF.

\textsuperscript{33}Recall that I used the same argument to explain the apparent cases of CNP violations pointed out by Longobardi. Ungrammaticality in those cases was shown to derive from the specificity of the CNP, and not from the complexity of the NP itself. Also recall the similarity between this analysis and the one that I proposed in order to account for the subject/indicative contrast to which crossclausal negative concord is subject.

\textsuperscript{34}For a syntax/semantics explanation of the specificity effect on Wh-movement see Diesing (1990, 1992). Crucially, Diesing (1990, 1992) derives the barrierhood of specific DPs from their adjoined position at LF.
within a DP that also contains an agent:

(67) *Julio no ha visto [dp la foto de este fotógrafo_{agent} de nadie_{possessor}].

Julio has not seen the picture of this photographer of nobody
‘Julio has not seen anybody’s picture by this photographer.’

As I discuss above, the status of (67) is clearly deviant, in spite of the fact that, if movement of the N-phrase were involved, the thematic hierarchy constraint would not be violated. This is because it is the possessor (the highest argument) that is allegedly extracted in the presence of an agent (the second highest argument in the hierarchy.) Note, however, that, as in the previous sentences, the DP is introduced by a definite determiner, and the agent argument of the noun is introduced by a demonstrative, thus rendering the DP containing the N-phrase highly specific. As a consequence, the entire DP gets higher scope than negation. Arguably, this leaves the N-word outside of the scope of its licenser, and this is what produces the deviant status of (67). An important observation here is that the status of (67) improves if the DP containing the N-word is introduced by an indefinite article and the agent is also interpreted as unspecific, as in (68):
(68) ? Pedro no ha visto [DP una foto de un fotógrafo_{agent} de nadie_{possessor}].

Pedro has not seen a picture of a photographer of nobody

'Pedro has not seen anybody's picture by a photographer.'

Note that the presence of the agent argument might favor the specific reading of the DP, i.e., a reading corresponding to "one of the pictures by a photographer." With such an interpretation, the sentence is still deviant. Importantly, the status of (68) does not worsen even if the N-phrase nadie is interpreted as a theme (which is lower in the hierarchy than the agent un fotógrafo), as in (69):

(69) ? Pedro no ha visto [DP una foto de un fotógrafo_{agent} de nadie_{theme}].

Pedro has not seen a picture of a photographer of nobody

'Pedro has not seen anybody's picture by a photographer.'

This shows that once the specificity of the DP is controlled

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35 As is well known, indefinite DPs are ambiguous between specific and unspecific readings (cf. Milsark, 1974; Diesing, 1990, 1992 etc.)
for, the thematic hierarchy shows no effect of preventing negative concord construal across a DP boundary.

The awkward status of sentence (68) might be due to the iteration of genitive phrases within the same DP. In any case, it is clear that the hierarchy constraint does not yield the right prediction here. Rather, different factors, some of which are semantic in nature, contribute to either blocking or allowing negative concord construal across DPs. I conclude, then, that the data provided by Moritz and Valois as evidence for the movement analysis of N-phrases (especially, their Spanish counterparts) are compatible with a non-movement approach and are better explained if they are subsumed under the specificity effect.  

A further reason why it seems suspicious to allege N-word sensitivity to the hierarchy condition as proof that movement is involved in negative concord is that it is not altogether clear that LF operations (such as scope taking by quantifiers)

36Although it seems to be the case that the presence of a possessor or a genitive agent within a DP has an effect on the specificity of that DP (cf. Torrego 1988), I am not clear on whether the thematic hierarchy effect observed in overt Wh-extraction out of DPs can be completely subsumed under the specificity effect. As has been discussed by Contreras (1993), extraction out of DPs is a complicated phenomenon that is sensitive to different factors such as the choice of matrix predicate, the position of the DP within the sentence, and even the abstract or concrete nature of the head noun. What is clear here is that the examples selected by Moritz and Valois do not constitute a test case for the thematic hierarchy constraint, given that their DPs are highly specific and thus biased towards ungrammaticality.
are constrained by the thematic hierarchy. Thus, for example, note that the quantified phrase many of the theorems, a theme, in (70) can take scope outside of its containing DP in the presence of another argument that can be interpreted either as an agent or a possessor. The reading in which many of the theorems takes wide scope is paraphrased in (71): 37

(70) I was able to understand [\textsubscript{DP}Euclid's (agent/possessor) proof of many of the theorems (theme).]

(71) There are many of the theorems such that I was able to understand Euclid's proof of them.

The same effect is illustrated in Romance, where the hierarchy effect seems to be more salient. Thus, in the Spanish example (72) the phrase muchos teoremas 'many theorems' can be interpreted in the same way as many of the theorems in (70):

(72) He logrado entender [\textsubscript{DP}la prueba de Euclides (agent/possessor) de muchos teoremas (theme).]
I have been able to understand the proof of Euclid of many theorems
'I have been able to understand Euclid's proof of many theorems.'

37Example (70) is from Lasnik (1972).
What the examples in (70) and (72) suggest is that the hierarchy constraint does not affect the LF operation of quantifier raising. Therefore, the claim that the distribution of *personne* is, to a certain extent, constrained by the hierarchy condition (insofar as the hierarchy effect is often tied to other semantic effects, such as the specificity effect) does not prove that *personne* moves at LF, given that there is no independent evidence showing that LF movement is at all subject to the hierarchy constraint.

I will finish my criticism of the evidence put forward in favor of the movement analysis of N-phrases by discussing an independent argument that Moritz and Valois (1994) advance in support of the claim that *personne* in French moves specifically to the position of the Specifier of NegP. This argument is worth reviewing because, unlike most of the discussion on this topic that one finds in the literature, it does not revolve around the notion of sensitivity to island configurations. Rather, it is based on the behavior of *personne* with respect to the licensing of the French nonpartitive construction [0 de NP].
3.6.2.2 Personne and the licensing of nonpartitive $[0 \text{ de NP}]$
in French

To make the argument that personne in French moves to theSpecifier position of NegP, Moritz and Valois (1994) adduce some evidence that is independent of any island sensitivity effects. Their evidence involves quantified NPs of the form $Q\ldots[0 \text{ de NP}]$. As has been amply discussed in the literature (cf. Kayne 1984, Obenauer 1984), there is an alternation in French between quantified NPs such as the one highlighted in (73) and (74) below. As can be observed in these examples, certain French quantifiers, such as beaucoup, can appear either in the canonical NP-internal position, as in (73), or they can appear displaced, forming a discontinuous constituent with the rest of the quantified NP, as in (74):

(73) Jean a mangé $[_{\text{NP}} \text{ beaucoup de chocolat.}]$
Jean has eaten a lot of chocolate
'Jean ate a lot of chocolate.'

(74) Jean a beaucoup, mangé $[0, \text{ de chocolat.}]$
Jean has a lot eaten of chocolate
'Jean ate a lot of chocolate.'

As the coindexing between beaucoup and the empty category
within the NP in (74) indicates, it is assumed that there is connectivity between the displaced quantifier and the empty element in its canonical position. Furthermore, the relationship between these two elements is licensed only if the quantifier c-commands the empty category (cf. Kayne 1984). Note, for example, the contrast between (75) and (76):

(75) (Jean a beaucouP₁ vu [IP [NP 0₁ d’enfants] [vp manger]]
Jean has a lot seen of children eat
‘Jean saw a lot of children eat.’

(76) *Jean a vu [IP [NP 0₁ d’enfants] [vp beaucouP₁ manger]]
Jean has seen of children a lot eat

Establishing a parallelism with the discontinuous QNP construction in (74), Moritz and Valois argue that personne can also license the empty category in the non-partitive [0 de NP] construction. They assume that the same relationship that holds between beaucoup and the empty category in the above examples also holds between personne and the empty category within the object NP in (77):
(77) *Personne ne mange [m₀ de pain.]
Nobody not eats of bread
'Nobody eats bread.'

Interestingly, however, as they observe, *personne* can still license the empty category even from a non c-commanding position, as in (78):

(78) Lucie n'a donné [m₀ 0 de livres] [pp à l'ami de
*personne]
Lucie not has given of books to the friend of nobody
'Lucie has not given any books to anybody's friend.'

Moritz and Valois explain the different behavior of *personne* and *beaucoup* with respect to the licensing of discontinuous QNPs by arguing that *personne*, unlike nonnegative quantifiers such as *beaucoup*, moves to Spec NegP at LF. Following Pollock (1989), they assume that *NegP* is located between *TP* and AgrP in French. Once *personne* moves to the Spec of *NegP* at LF it will c-command and thus license the empty category within the object NP. This is illustrated in the LF representation in (79):

(79) ...[NegP personneᵢ [Neg' ne...[Agrp[0 de NP t₁]]]]
For Moritz and Valois, the fact that *personne* can license discontinuous quantified structures even when it appears in a non c-commanding position at S-Structure is used as evidence that movement to a higher position is involved.  

At first blush, Moritz and Valois’s analysis provides a neat account of the different behavior of *personne* and *beaucoup* with respect to the nonpartitive [0 de NP] construction, and it preserves Kayne’s (1984) generalization that the quantifier that licenses the empty category in these types of structures always occurs in a c-commanding position with respect to the empty element. There is, however, a troubling aspect of Moritz and Valois’s account that casts their whole analysis into doubt. Namely, they assume without any argumentation that in sentences like (77) above, it is *personne* that licenses the empty category within the object NP, and, furthermore, they crucially assume that the relationship holding between *personne* and the [0 de NP] constituent is the same as the one holding between *beaucoup* and the nonpartitive [0 de NP] in examples such as (74). ((74) and (77) are repeated below for convenience):

\[\text{(74)} \quad \text{(77)}\]

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38See Moritz and Valois for discussion of why they assume that *personne* moves to Spec NegP as opposed to adjoining to IP via QR. Part of the reason why they make such an assumption is that *pas*, another negative element that also licenses the [0 de NP] configuration, is standardly assumed to occur in Spec NegP (cf. Pollock 1989). What they do not mention, however, is that, unlike *personne*, *pas* cannot license the [0 de NP] structure from an S-Structure, non c-commanding position.
(80) Jean a beaucoup mangé [0 de chocolat.]
Jean has a lot eaten of chocolate
'Jean ate a lot of chocolate.'

(81) Personne ne mange [0 de pain]
Nobody not eats of bread
'Nobody eats bread.'

It is crucial to note that the claim that the same relationship obtains between beaucoup and [0 de chocolat] in (80) and personne and [0 de pain] in (81) is inaccurate. In structures like (80), beaucoup and [0 de chocolat] clearly form a discontinuous constituent. This is evidenced by the fact that the discontinuous structure alternates with the construction in which the quantifier appears in its canonical position, as in (73), repeated here as (82):

(82) Jean a mangé [w beaucoup de chocolat.]
Jean has eaten a lot of chocolate
'Jean ate a lot of chocolate.'

In (82), beaucoup is a two place predicate whose first argument is the nonpartitive N' constituent de chocolat. It

39Under the Determiner Phrase (DP) theory developed by Abney (1987), the constituent de chocolat would be an NP.
is reasonable to assume that in the discontinued structure, beaucoup forms a chain with the empty category in its canonical position. In contrast, there is no evidence to assume that personne and [0 de pain] form a discontinuous constituent in sentences like (81). No alternate form exists where personne appears within the nonpartitive [0 de NP] constituent. Clearly, personne is not a two place predicate that can compose with the N' constituent [0 de pain] to form a quantified NP such as *[personne de pain]. Semantically, it makes little sense to claim that personne is in any way connected to a position internal to the NP containing the empty category. And syntactically, there is no evidence that personne is tied to the NP internal position, since, as we saw, there is no alternate form where personne forms a constituent with the [0 de NP] NP. I conclude, then, that there is no real basis to assume that it is personne that directly licenses the empty category in the structures under discussion, in the same way that beaucoup does.

Alternatively, it is possible that the empty category in sentences like (81) is licensed by a nonovert realization of pas, which is independently known to be able to license the nonpartitive [0 de NP] structure, as in:
Since *pas* is standardly assumed to occupy the Specifier position of NegP in French, a reasonable analysis of the structure in (83) is that *pas* originates within the object NP and then raises to Spec NegP, a position from which a well-formed chain can be established between *pas* and the NP internal position. The reason why *pas* is nonovert when an element like *personne* is present might have something to do with economy reasons related to the Jespersen Cycle effect discussed by Ladusaw (1993).

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40 Alternatively, it can be argued that the chain is base generated, or even that in structures like (83), *pas* occupies the NP internal position and not the Spec NegP position.

41 It is generally the case that *pas* does not cooccur with other elements bearing a formal negative feature:

*Je ne veut pas rien*
I not want nothing

Je ne veut rien.
I not want nothing
'I don’t want anything.'

*Je n’ai vu pas personne.*
I not have seen nobody

Je n’ai vu personne.
I not have seen nobody
'I haven’t seen anybody.'
In any case, it is clear that no connection can be established, either on syntactic or semantic grounds, between personne and the object NP internal position in sentences like (81). An analysis based upon the parallelism between beaucoup and personne with respect to the licensing of the French, discontinuous QNP structures is, therefore, ill conceived. If, as I argue, personne is not the licensor of the empty category in the examples discussed, it should come as no surprise that it can appear in a position that does not c-command the NP that contains the empty element, as in (78), repeated here as (84):

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42Moritz and Valois argue that the reason why negative items like personne do no cooccur with pas is that they both compete for the Spec NegP position at LF. However, given that they assume that all N-phrases move to Spec NegP at LF (following Zanuttini 1991 and Haegeman and Zanuttini 1991), one should not expect to be able to find more than one N-phrase in a sentence. This prediction turns out to be false, since, as is well known, French is a negative concord language where various negative phrases can appear in one sentence yielding only one instance of negation, as in (i):

(i) Je n'ai parlé de rien à personne.
I not have talked of nothing to nobody
'I have not talked about anything to anybody.'

Given that they analyze the negative concord effect as the result of a process of absorption following the stacking of all the concordant terms in Spec NegP at LF, their explanation of the incompatibility of pas with other negative items is inconsistent.
Lucie n’a donné [\text{0 de livres}] \text{à l’amie de personne}.

Lucie has not given any books to anybody’s friend.

Once this is established, Moritz and Valois’s independent argument for positing movement of 	ext{personne} at LF is left unsubstantiated.

To sum up, in the previous sections, I have shown that the standard syntactic arguments in support of the unbounded movement analysis of N-words are, at best, inconclusive, and in some cases flawed. We have seen that the apparent island effects that N-words display are the product of independent principles, such as the specificity effect, which are not strictly syntactic in nature. The ungrammatical results that N-words produce in certain island configurations do not come out as the result of the unbounded movement of the N-phrase out of the island, but rather, they independently result from the inability of the N-phrase to comply with its polarity licensing requirements. For example, as we saw, the ungrammaticality that sometimes arises when N-words occur within complex noun phrases and relative clauses was explained in terms of the specificity (or the wide scope reading) of the complex noun phrase containing the N-word. Crucially, specific noun phrases take wider scope than negation in order to be
interpreted. This requirement conflicts with the requirement of N-words (analyzed as negative polarity items) to be within the scope of negation.

Another effect to which wh-extraction is sensitive, namely the thematic hierarchy effect on extraction out of DPs, was shown to affect N-word licensing only insofar as the so-called hierarchy effect can be subsumed under the specificity effect. As I show in my discussion of Moritz and Valois's (1994) arguments, once the specificity of the DP is controlled, the hierarchy effect plays no role in determining the distribution of N-phrases. Furthermore, as I point out earlier, arguing in favor of the unbounded movement of N-words at LF on the basis of apparent similarities with the syntactic behavior of overt Wh-movement is methodologically suspect, since LF construal operations, such as quantifier raising, are not unbounded in the same way overt wh-movement is.43

Additionally, the independent argument based on the licensing of discontinuous quantified phrases in French that Moritz and Valois (1994) adduce in favor of postulating movement of negative phrases to Spec NegP was shown to be ungrounded. I conclude that neither the island-independent argument presented by Moritz and Valois, nor the other

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43A more fruitful approach is that taken by Arnáiz (1993), who compares the distribution of N-words in Romance to that of Wh in situ and points out some of the differences between the unbounded nature of overt Wh-movement versus the more restricted distribution of N-words and Wh-phrases in situ.

3.7 Summary and conclusions

At the outset of this chapter, I reviewed that the scopal relations between embedded N-words and certain predicates in the matrix clause suggest that the scope of N-words is not unbounded as many classical analyses of negative concord construal (cf. Kayne 1981, Rizzi 1982, Longobardi 1991, Zanuttini 1991, Bosque 1992) postulate. I then proceeded to show that the relative scope between N-words and different types of quantified phrases provides positive evidence that an in situ analysis of N-words is superior to one where N-words are predicted to have unbounded scope. I also argued that the data analyzed is more consistent with a treatment of N-words as NPIs with no negative content of their own than with a characterization of N-words as negative quantifiers, and I showed that the Negative Criterion, which is the morphological driving force underlying Zanuttini's (1991) and Haegeman and Zanuttini's (1991) negative quantifier analysis, is empirically vacuous. The core evidence that I have presented
involves structures in which a quantified phrase intervenes between an instance of negation in a matrix clause and a N-word in the object position of the embedded clause. Such structures resemble the weak island configuration for negative concord construal, since we find a scope taking phrase intervening between two elements that are construed together. If N-words, in fact, undergo unbounded movement in order to be construed with the matrix negation, one might expect that the intervening quantified phrase will block the negative concord construal via a violation of relativized minimality. As it turned out, the interaction between the matrix negation, the intervening quantified phrase, and the embedded N-word proves to be quite revealing both with respect to the issue of how N-words are licensed and with respect to the issue of their semantic nature.

In the last sections of this chapter, I reviewed some compelling evidence in favor of the claim that N-words undergo syntactic movement, and I argued that all of this evidence has, in fact, been misanalyzed and is better explained on independent grounds that have nothing to do with the movement of N-words at LF. I also showed that in some cases, the evidence coming from syntactic island effects actually goes against the point that the defenders of the movement approach want to make. For example, as I showed, negative concord can violate the adjunct constraint, as well as the CNP when the
complex noun phrase is not specific. Other instances in which the unbounded movement analysis makes the wrong predictions are felicitous cases of negative concord across relative clauses when the relative clause is subjunctive.

So far, I have discussed numerous pieces of evidence that guide me towards the conclusion that N-words are not negative quantifiers, but that they are rather negative polarity items. I have weighed the arguments and data presented by those researchers that defend the negative quantifier approach, and I have concluded that such an analysis cannot account for the idiosyncratic distribution of N-words, their chameleon-like semantics, or their scopal interpretation. In contrast, we saw that, for example, the distribution of N-words is consistent with that of clear cases of NPIs in languages like English (cf. also Bosque 1980 and Laka 1990). We also saw that there is evidence showing that N-words do not undergo the syntactic scope-taking rule (whether the movement is driven by QR or by operator/head agreement in Spec NegP) that real quantificational elements are assumed to be subject to under standard approaches. Some of the discussed island facts that

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44In fact, any analysis positing that N-word licensing is mediated by movement misses the scopal interpretation of N-words, whether the N-words themselves are defined as negative quantifiers or as NPIs. As we saw, the NPI hypothesis is divided between those who posit movement (Kayne 1981, Rizzi 1082, Jaeggli 1982, Bosque 1992) and those who don't (Laka 1990). The negative quantifier hypothesis, however, is only consistent with the movement approach.
a negative quantifier approach cannot account for (such as, for example, the indicative/subjunctive contrast that negative concord displays across relative clauses) follow naturally if it is assumed that N-words are NPIs. Recall that, in those cases (as well as in the specificity effect cases), negative concord is possible only when different, independent grammatical requirements (such as the LF position of presupposed and nonpresupposed clauses with respect to negation) contribute to placing the N-word within a negative polarity licensing environment. 45

In the next chapter, I will argue that, in contrast to the negative quantifier approach, the NPI approach is consistent with the semantic variability that N-words display. In order to make this point, I will investigate the logicosemantic nature of N-words. Certainly, a complete exploration of the nature of N-words cannot stop at simply identifying them as NPIs, since, on the one hand, there are different classes of NPIs and, on the other hand, there is controversy regarding the issue of what NPIs are in

45 For simplicity purposes, I have been assuming that a negative polarity licensing environment is a downward entailing environment. However, it is necessary to bear in mind that, although it is generally the case that downward entailing environments license NPIs, the context in which NPIs are licensed still needs to be defined more precisely. Recall my discussion in section (3.4).
general. My position is that N-words, in particular, can be characterized as indefinite variables (in the sense of Heim 1982) with additional polarity requirements (cf. Ladusaw 1992, 1993 and Lee and Horn 1994). In this regard, I depart from previous analyses of N-words as NPIs, such as those proposed by Bosque (1980), Laka (1990), Rizzi (1982) and others, since these classical analyses explicitly characterize N-words as existential quantifiers with polarity requirements. My view is more radical than theirs, since I do not only claim that N-words do not have negative force, but I also claim that they are not quantificational.

46 In the literature, one often finds a distinction between the so called strong NPIs (also known as sensitive NPIs) and the so called weak NPIs. The first group includes expressions such as: a damn thing, a red cent, etc. The second group includes elements such as: anybody, ever, etc. Among other things, the two groups of NPIs differ with respect to the locality of their licensing requirements. As it appears, sensitive NPIs need to be closer to their licensors than weak NPIs.
Chapter 4
N-WORDS AS INDEFINITE VARIABLES

4.0 Introduction

In this chapter, I investigate the logicosemantic nature of N-words. So far, I have argued that they are negative polarity items, rather than negative quantifiers, and that they do not have negative content of their own. Here, I will argue that they do not have quantificational force at all and that they are better characterized as indefinite variables (cf. Heim 1982 and Kamp 1981) whose interpretation derives from some sentential operator. In this regard, my analysis differs from those of Bosque (1980) and Laka (1990). I will assume that the special distribution of N-words, which is clearly stricter than that of regular indefinites, derives from the fact that they are subject to some polarity requirements that are imposed on them by their lexical semantics (cf. Lee 1993 and Lee and Horn 1994 for English any.\(^1\)

\(^1\)Lee (1993) and Lee and Horn (1994) argue that the English NPI any equals an indefinite determiner, a, plus an incorporated even. They derive the polarity properties of any from the semantics of the incorporated element even. The semantics of even have been amply discussed in the literature (cf. Horn 1969, Fauconnier 1975, Rooth 1985.) As Fauconnier
Here, I will mainly concentrate on demonstrating that, rather than being negative or existential quantifiers, N-words are semantic variables. My main motivation for treating N-words in this way is the same that moved Heim (1982) to break up with the Russellian tradition of treating regular indefinites as existential quantifiers and to characterize them as unselectively bound variables instead. That is, as I will show, the motivation for this analysis relies on the quantificational variability and on the ability to be unselectively bound that N-words, like regular indefinites, display.

As Heim (1982) observes, the reason why indefinites have been traditionally analyzed as existential quantifiers is that the relevant types of examples considered have usually been such ordinary sentences as, for instance, John owns a car, which is, in its most natural reading, interpreted as:

(1) \( \exists x \ [x \text{ is a car and John owns } x] \)

However, if one focusses on the interpretation of indefinites (1975) puts it, the role of even is to signal a pragmatic scale with regard to the context of utterance. The consequence of the pragmatic scale triggered by even is that if a property holds for the lowest element of the scale, then it holds for all other elements on the scale. So, for example, even the faintest noise wakes me up implies that all louder noises also wake me up. Lee's (1993) and Lee and Horn's (1994) argument, then, is that the polarity properties of any derive from the pragmatic scale triggered by even.
in sentences such as (2) through (4) below, their semantics does not appear to be so straightforward:

(2a) **A French painter** usually lives in Paris.
(b) Most French painters live in Paris.

(3a) **A French painter** seldom lives in Paris.
(b) Few French painters live in Paris.

(4a) **A French painter** always lives in Paris.
(b) All French painters live in Paris.

The relevant observation here (which is originally due to Lewis 1975) is that the indefinites above display quantificational variability. As the paraphrases in the (b) sentences illustrate, the interpretation of the indefinite depends on the quantificational force of the sentential adverb in each case. On this basis, Heim (1982) argues that indefinites have no quantificational force of their own, but, rather, they act like free variables which get bound within the domain of the closest available quantifier. In (2) through (4), the variables introduced by the indefinites are bound by the adverbs of quantification. If there is no available

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2These types of adverbs are referred to as adverbs of quantification since Lewis (1975).
quantifier, the indefinite is bound by an implicit existential quantifier, as in (1) above. This process is known as existential closure (cf. Heim 1982, Kamp 1981, Diesing 1990, 1992).

The quantifiers in (2) through (4) above induce what is known as restricted quantification. That is, the quantifier in (2), for example, does not quantify over every thing or entity, rather it quantifies over the restricted set of entities that are French painters. The restricted set which constitutes the quantificational domain of the quantifier is called its restriction and is represented in Logical Form as the restrictive clause that is highlighted in (5):

\[(5) \forall_x [x \text{ is a painter}] \ [x \text{ lives in Paris}]\]

The quantifier acquires its scope by adjoining to its clause via a process that Heim (1982) calls QUANTIFIER CONSTRUAL. The result is a tripartite logical structure, in which there is a quantifier, a restrictive clause which constitutes the domain

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3 Unrestricted quantification would predict that the right interpretation for a sentence like (2) is: All entities are entities that are French painters and live in Paris. Obviously, this is not the right interpretation of (2). Restricted quantification adequately predicts that the interpretation of (2) is equivalent to: All French painters are French painters and live in Paris.

4 This rule applies both to adverbs of quantification and to quantificational determiners, such as every.
of the quantifier, and a nuclear scope, or the scope of the quantification, which expresses a property of the restriction. (see also Kamp 1981). In Heim's (1982) theory, the quantifier inherits the index of the variables in its domain and, consequently, it binds them.\(^5\) Any variables that appear in the nuclear scope and are not bound by any other quantifier are bound by the default rule of existential closure by which an existential quantifier is attached to the scope of the quantificational structure, as in:

(6) Every child ate a bonbon.

\((6')\forall x [x \text{ is a child}] \exists y [y \text{ is a bonbon} \land x \text{ ate } y]\)

This is the essence of the so called Discourse Representation Theory (DRT), which I will assume here. This theory has at its base the ideas of Lewis (1975) and has subsequently been developed in work by Kratzer (1978, 1986), Kamp (1981), Heim (1982), Diesing (1990, 1992), and others.

An important aspect of the type of quantification represented by the sentences in (2) through (4) above is that the quantifier can potentially bind any variables appearing in its domain. This phenomenon is known as unselective

\(^5\)See Basilico (1993) for a detailed account of the process via which the indexes of the variables wind up being copied onto the quantifier and for a discussion of the locality constraints imposed on index copy.
quantification and it captures the effect observed in, for example, (7) below, where the reading obtained is one in which there is quantification over student/ professor/ paper triplets:

(7) If a student gives a paper to a professor, she always expects her to comment on it.

(7') $\forall_{xyz} [\text{student}(x) \land \text{professor}(y) \land \text{paper}(z) \land x \text{ gives } z \text{ to } y] [x \text{ expects } y \text{ to comment on } z]$

That is, the sentence above can be paraphrased as for every student/professor/paper triplet such that the student gives the paper to the professor, the student expects the professor to comment on the paper.

The logical representation of (7) in (7') derives from Kratzer's (1986) treatment of conditionals whereby conditional clauses are attributed the specific semantic function of restricting an operator, which, in this case, is an adverb of quantification. In (7) above, then, the conditional clause forms the restrictive clause of the quantificational adverb, always, and all the indefinites contained in the restriction get bound by the same quantifier, thus giving rise to the

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6Kratzer's analysis of conditionals in turn stems from the observations made in Lewis (1975).
"triplet" reading. Within the framework of Discourse Representation Theory, the variables here are said to be unselectively bound by the quantificational adverb.

With this background in mind, and now that the concepts of quantificational variability and unselective binding have been made clear, I will begin to lay out my proposal that the logicosemantic nature of N-words is the same as that of indefinite variables (cf. also Ladusaw 1992 and 1993 for some discussion suggesting that an analysis of N-words as indefinite variables is on the right track). As I will argue,

7The claim that an adverb of quantification unselectively binds all the variables in its restriction might be too strong. As is discussed by Kadmon (1987), Heim (1990), Chierchia (1992), and others, in sentences like (i), the If-clause contains two indefinites, and, therefore, under the DRT framework, the restriction of the quantifier contains two variables at Logical Form. However, it seems that only one of the variables, namely, the one corresponding to a village is bound here by the quantifier. Similarly, in (ii), three variables are contained in the restriction, but the quantifier only quantifies over pairs of women and men, not over triplets of women, men, and sons:

(i) If a painter lives in a village, it is always pretty. 
\( \forall x [x \text{ is a village that a painter lives in}] [x \text{ is pretty}] \)

(ii) If a woman has a son with a man, she always keeps in touch with him. 
\( \forall_{xy} [x \text{ is a woman} \land y \text{ is a man} \land x \text{ has a son with } y] [x \text{ keeps in touch with } y] \)

The sentences above indicate that adverbs of quantification restricted by an If/When-clause do not necessarily bind all of the indefinites in their restriction. Rather, which indefinites are selected to be quantified over by the operator is, perhaps, a function of the discourse salience of the indefinite (cf, Kadmon 1987, 1990).
N-words show both the same semantic variability and the ability to be unselectively bound that variables introduced by regular indefinites display. My analysis will also highlight the parallel behavior of N-words and another type of element that has also been recently identified as an unselectively bound variable in the analyses of Nishigauchi (1990), Berman (1991), and Cheng (1991), namely the Wh-phrase.

The key set of data on which I will base my arguments is an interesting paradigm, first identified by Bosque (1992), revealing that the indicative/subjunctive contrast that long distance negative concord is generally subject to does not arise when the indicative clause is +Wh. That is, negative concord, which is generally blocked across indicative boundaries, is nevertheless possible across +Wh indicative clauses. My goals in the following sections will be to provide an explanation for the perplexing paradigm pointed out by Bosque (1992), to extend the data in Bosque's paradigm, and to use these data as evidence that N-words are better analyzed as semantic variables rather than as negative or existential quantifiers. My specific claims are that a version of a Berman (1991) style analysis of embedded Wh-clauses coupled with an analysis of N-words as indefinite variables offers an account for Bosque's puzzling paradigm and captures the right interpretation of the data more accurately and naturally than any other analysis of N-words.
The organization of the chapter is as follows. First, I review the pattern of negative concord across subjunctive and indicative clauses (section 4.1), and I point out the specific questions that are raised by the behavior of negative concord across +Wh-clauses (section 4.2). Then, in section (4.3), I lay out the underlying assumptions of my analysis, namely, that Wh-clauses act as the restrictive terms of an operator (cf. Berman 1991) and that Wh-phrases introduce variables in the semantic representation of a sentence (cf. Nishigauchi 1990, Berman 1991, Cheng 1991). In section (4.4), I expand the core set of data in Bosque's (1992) paradigm; I proceed to show how an analysis of Wh-clauses as open sentences is crucial for our understanding of why +Wh-clauses allow negative concord (and N-word licensing in general) across an indicative boundary; and I discuss the evidence for characterizing N-words as semantic variables. In particular, I show that treating N-words as indefinite variables with polarity requirements allows both for a simple explanation of the behavior of N-words in the examined structures and for the accurate interpretation of the obtained readings. In sections (4.5) through (4.9), I investigate some of the consequences of the analysis that I adopt, I sum up my conclusions, and I call attention to the crosslinguistic advantages of my particular characterization of N-words in Romance.
In order to understand the issues raised by the behavior of negative concord across +Wh-clauses (which will constitute the key data on which I base my proposal) it is necessary to view this phenomenon within the context of the general pattern of negative concord across indicative and subjunctive clauses. I, thus, begin my discussion by briefly reviewing the subjunctive/indicative contrast that negative concord generally displays in declarative sentences (cf. section 2.1.5 for a more detailed exposition).

As I discussed in section (2.1.5) of chapter 2, a well established generalization in the literature is that the phenomenon of crossclausal negative concord, illustrated in (8) below, can typically occur across subjunctive clauses but not across indicative clauses (cf. Rivero 1971, Laka 1990, Progovac 1993, etc.) Thus, sentence (8), where the embedded clause is in the subjunctive mood, is grammatical with the negative concord reading. Sentence (10), which differs minimally from (8) in that the embedded clause is in the indicative mood, is uninterpretable. The matrix negation cannot license the embedded N-phrase ningún artista across an indicative boundary. Sentences (9) and (11) are given to show that the main predicate recordar ('remember') can subcategorize for either a subjunctive or an indicative
complement clause.

(8) No recuerda [que conozcas-SUBJ a ningún artista.]
    S/he doesn’t remember that you know no artists
    ‘S/he doesn’t remember that you know any artists.’

(9) No recuerda [que conozcas-SUBJ a Picasso.]
    ‘S/he doesn’t remember that you know Picasso.’

(10)*No recuerda [que conoces-IND a ningún artista.]
    S/he doesn’t remember that you know no artists
    #‘S/he doesn’t remember that you know any artists.’

(11) No recuerda [que conoces-IND a Picasso.]
    ‘S/he doesn’t remember that you know Picasso.’

As the contrast between (10) and (11) reveals, the status of (10) can only be due to the fact that N-word licensing cannot happen across an indicative boundary.\(^8\)

\(^8\)As I clarified in my discussion of this effect in chapter 2, the difference between subjunctive and indicative complements lies in the presuppositionality of the embedded clause. When the complement of remember is subjunctive, as in (8) and (9), the truth of the embedded clause is not presupposed. In contrast, in (11), where the complement is indicative, it is presupposed that the embedded proposition is true.

As I already pointed out in chapter 2, the discussed indicative/subjunctive contrast is less prominent when the main predicate is a nonfactive verb like believe, as in (i)
There have been various attempts to explain the subjunctive/indicative contrast seen in (8) and (10) (cf. Rivero 1971, Laka 1990, Progovac 1993). In chapter 2, I discussed the Negative Complementizer approach of Laka (1990). To review, Laka (1990) claims that N-word licensing across a subjunctive clause is actually local via an intermediate Negative Comp. She argues that the subjunctive mood in Spanish is an irrealis mood and that the presence of an irrealis mood in embedded structures of the type of (8) above indicates that the embedded clause is under the scope of an intermediate negative Comp that has been selected by the matrix, negative predicate. In her view, although there is no overt difference between negative and nonnegative complementizers in languages like Spanish, the mood of the embedded clause provides a clue

and (ii) below:

(i) No se cree [que conozcas-SUB a ningún artista.]
'S/he doesn't believe that you know any artists.'

(ii) ??No se cree [que conoces-IND a ningún artista.]
'S/he doesn't believe that you know any artists.'

Thus, some people might find (ii) acceptable with the negative concord reading. Crucially, in such cases, the truth of the embedded proposition is not presupposed. That is, if sentence (ii) is allowed to have the negative concord reading (which is, nevertheless, not easily available for all speakers), then, the indicative complement is interpreted as if it were a subjunctive complement. This indicates that it is the semantic interpretation of the embedded complement, more than the specific morphology of the clause, that determines whether negative concord is allowed or not across a clause boundary.
as to which type of complementizer has been selected in the relevant environments. In Laka's approach, a negative Comp in the embedded clause acts as an intermediary between the matrix negation and the embedded N-phrase in sentences like (12), where the embedded clause is subjunctive. In (13), the indicative mood of the complement clause signals that no negative Comp has been selected. The matrix negation cannot license the embedded N-phrase locally and, therefore, the embedded N-phrase is left unlicensed:

(12) \( \text{No recuerdo \, \lbrack \text{Neg}_{\text{comp}} \text{ que conozcas-SUBJ a ningún artista.} \rbrack} \)

'I don't remember that you know any artists.'

(13) \( \ast \text{No recuerdo \, \lbrack \text{comp que conoces-IND a ningún artista.} \rbrack} \)

'I don't remember that you know any artists.'

In my discussion of this phenomenon in section (2.1.5) I pointed out some problems with Laka's assumption that N-word licensing is strictly local, and I proposed that what I called the Clause raising approach to the subjunctive/indicative contrast is more explanatorily adequate than Laka's. Recall that the Clause raising approach exploits the difference in presuppositionality between subjunctive and indicative clauses. Namely, it relies on the generalization that
indicative, but not subjunctive complements, are presupposed to be true. Given the empirical observation that presupposed constituents take wider scope than negation, and in accordance with the structural approach to scope assignment of May (1977) and Williams (1977), I assume that the subjunctive/indicative contrast is due to the difference in structural position between subjunctive and indicative complements at LF. In this approach, which is the one that I adopt here, the subjunctive/indicative contrast follows from the fact that, generally, indicative clauses (as opposed to subjunctive clauses) raise and are attached outside of the scope of negation at LF, thus leaving an N-word contained in them outside of the domain of its NPI trigger. Recall the representation in (49) of chapter 2, repeated here as (14):
The reason why I argue that the Clause-raising approach is more explanatorily adequate than the Neg Comp approach is that it offers a uniform explanation for a variety of apparently disparate but nevertheless related phenomena, including the subjunctive/indicative contrast, the specific/nonspecific NP contrast in the licensing of N-words across NP boundaries, and some apparent thematic hierarchy effects on the licensing of N-words across DPs (cf. sections 3.6.1.1 and 3.6.2.1). Additionally, the Clause-raising analysis avoids making the problematic claim that N-word licensing is strictly local, and it accounts for why, under certain circumstances, the indicative/subjunctive distinction for negative concord becomes blurry for some speakers.  

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Recall that one of the advantages of the Clause-raising approach over the Neg Comp approach is that the former makes claims about the difference in scope between presupposed and not presupposed clauses, and not, strictly speaking, about a morphological difference between indicative and subjunctive clauses. As we saw, indicative and subjunctive clauses are generally interpreted as presuppositional and nonpresuppositional, respectively. However, for some speakers, the indicative complements of verbs like believe can sometimes be interpreted with a non presupposed interpretation, thus allowing negative concord across them. The clause-raising approach can account for these cases, since it exploits the difference in presuppositionality between different embedded complements, and it predicts that all complements that stay within the scope of negation at LF will allow N-word licensing across them. An account that is based on a pure morphological distinction between indicative and subjunctive clauses (such as that of Laka 1990), cannot account for the cases in which the indicative/subjunctive contrast on negative concord gets blurred.
4.2 Negative concord across +Wh-clauses

Interestingly, although it is clear that an indicative boundary blocks negative concord in declarative contexts, a different picture arises when the embedded clause is interrogative. Thus, as was first pointed out by Bosque (1992) (see also Arnáiz 1993), negative concord is possible across an indicative boundary providing that the embedded clause is +Wh. Consider sentences (15) and (16):\textsuperscript{10}

(15) No recuerdo [qué optativas ha-IND elegido ningún estudiante.]
I don’t remember which electives has taken no student
‘I don’t remember which electives any students have taken.’

(16) No sé [qué regalo le corresponde-IND a nadie.]
I don’t know which present belongs to nobody

\textsuperscript{10}Here, the availability of negative concord across an indicative boundary is not due to a marginal, nonpresupposed interpretation of the embedded complement as in the cases discussed above, where negative concord was marginally possible for some speakers across certain declarative, indicative complements. For one thing, note that the predicates selected in (15) and (16) are of the factive type. Additionally, it is important to understand that the negative concord effect in these sentences is quite robust, and it does not have the marginal status of negative concord across some declarative indicatives.
I don't know which present belongs to anyone.'

Both in (15) and in (16), we find a negation in the matrix clause and a negative phrase in the embedded clause. In (15), the N-phrase is the subject of the embedded clause, whereas in (16), the N-phrase is the indirect object. In both cases, negative concord obtains in spite of the fact that the embedded negative phrase and the matrix negation are separated by an indicative boundary. These data contrast sharply with sentences such as (13). The relevant difference between the two types of examples is that the embedded clause in (13) is declarative, whereas the embedded clause in (15) and (16) is +Wh.

There are two obvious questions that arise regarding the discussed contrast. First, how can an embedded N-phrase be licensed across an indicative boundary in these cases? Secondly, why do only Wh-clauses allow negative concord across an indicative barrier?\footnote{Marginal negative concord readings across indicative declaratives notwithstanding. Recall that I gave an independent explanation for those marginal cases.} I will offer an answer to these questions in section (4.3), but first I will show evidence in section (4.2.1) that the phenomenon at hand really involves long distance negative concord.
4.2.1 Long distance licensing of N-words across an indicative boundary

As I discussed in the previous section, an N-word contained in an embedded clause can be licensed by a matrix negation across an indicative boundary when the embedded clause is +Wh. But, before I address the question of why negative concord is allowed across an indicative boundary in these types of examples, let me make clear that, in fact, the embedded N-word in sentences like (15) and (16) is licensed by the matrix negation and not by some other element within the embedded clause. After all, we are assuming here that N-words are negative polarity items, and, as such, it is conceivable that they might be licensed within their own clause by the embedded Wh-word or by the +Wh Comp of the embedded clause.\(^\text{12}\) That this is not the case is evidenced by the contrast among the sentences in (17) through (20). In all of them there is a N-word contained within an indicative Wh-complement clause:

(17) **Nunca sé [qué asiento le corresponde-IND a nadie.]**

Never I know which seat belongs to nobody

'I never know which seat belongs to anybody.'

\(^{12}\)Recall that NPIs are licensed in some interrogative environments (cf. Higginbotham 1993).
(18) *Sé [qué asiento le corresponde-IND a nadie.]
I know which seat belongs to nobody
#'I know which seat belongs to anybody.'

(19) Rara vez me acuerdo de [cuánto me ha-IND costado nada.]
Rarely I remember how much costs has cost nothing
#'I rarely remember how much anything cost.'

(20) *Siempre me acuerdo de [cuánto me ha-IND costado nada.]
Always I remember how much has cost nothing
#'I always remember how much anything cost.'

Sentences (17) and (18) differ minimally in that whereas (17) contains a negative element in the matrix clause that can arguably license the embedded N-phrase a nadie, in sentence (18) no such element is present in the matrix. Note that sentence (17) is grammatical while sentence (18) is not, in spite of the fact that in both cases the embedded N-phrase to be licensed is contained within a Wh-clause. Obviously, the embedded interrogative environment does not provide a licenser for the N-word, or the contrast between (17) and (18) would be unexplained. The contrast between (17) and (18) thus shows that N-word licensing in this case really takes place across
an indicative boundary in sentence (17).

Sentences (19) and (20) show the same point as (17) and (18). (20) differs from (19) only in that the matrix adverb, *siempre*, is not downward entailing, that is, it is not the type of operator that creates a licensing environment for an NPI. In contrast, the adverb in (19) belongs to the class of NPI licensors, since it is downward entailing (cf. Ladusaw 1979, 1980). (19) is grammatical, whereas (20) is not. This contrast again shows that the embedded interrogative environment does nothing to license the embedded, postverbal N-word. Rather it is the matrix adverb that does the licensing in (19).

Interestingly, (19) is not, strictly speaking, a case of negative concord, since the matrix clause does not contain a negation. Rather, in (19), the matrix clause contains a non anti-additive, downward entailing adverb of quantification, *rara vez*, which is one of the types of operators, besides negation, that can license a negative polarity item. Examples such as (19) are not included in Bosque's (1992) paradigm, which portrays only strict negative concord structures. As will become clear in section (4.4), examples like (19) are key for understanding the semantic contribution of the N-words in these types of structures. Sentences (19) and (20) additionally show, then, that the phenomenon isolated by Bosque (1992) applies not only to negative concord, but, more
generally, to all instances of N-word licensing across a clause boundary. We see again that negative concord can be treated as a subcase of N-word licensing in general.

The two main observations that I have pointed out so far are that negative concord (and N-word licensing in general) is possible across indicative Wh-clauses, but not across declarative, indicative clauses, and that the embedded interrogative environment itself does not provide a licenser for an embedded N-word in these types of structures. The core of the problem, which I will address in the next section, is: if the embedded +Wh environment does not, by itself, provide a local licenser for an embedded N-word in the above sentences, why is it that only Wh-clauses allow negative concord across an indicative boundary? In addressing this question, I will make two basic claims. The first one is that an analysis of Wh-clauses as open sentences provides a key to our understanding of why negative concord is possible across indicative interrogatives. My second claim is that analyzing N-words as indefinite variables, in the sense of Heim (1982), succeeds over other treatments of N-words in providing the right interpretation of the data under discussion. I defend these claims in the following sections.
4.3 Wh-clauses as restrictive terms

Taking Berman's (1991) theory as a point of departure, I show here that an analysis of Wh-clauses as open sentences can offer an explanation for the puzzle raised by the phenomenon of N-word licensing across indicative Wh-clauses. In order to do so, I first review the aspects of Berman's theory of interrogatives that will be central to my analysis.

In his analysis of Wh-clauses, Berman adopts Nishigauchi's (1990) basic insight that Wh-phrases are like indefinite NPs in that they introduce a free variable into the logical representation of a sentence. Nishigauchi's and Berman's analyses of interrogatives are, in turn, based on Hintikka's (1976) view of +Wh clauses as open sentences.

Developing Hintikka's and Nishigauchi's ideas, and working within the framework of the Discourse Representation Theory, Berman argues that Wh-clauses form tripartite quantificational structures in the same way as in the DRT analysis of conditionals. The Wh-phrase provides the variable to be bound by the relevant operator. Consider, for example, the structure in (21). According to Berman, here there is an implicit universal which the Wh-clause restricts. The Wh-clause thus forms the restrictive clause of the operator, and the main clause forms the nuclear scope of the
quantificational structure:\textsuperscript{13}

\begin{align*}
(21) \text{The principal knows [which students cheat]} \\
(21') \text{For all}_x [\text{student}_x \land \text{cheat}_x] \quad [\text{knows (the principal)}] \\
\quad \text{student}_x \land \text{cheat}_x]
\end{align*}

Berman's motivation for analyzing Wh-clauses in this way derives, first, from the semantic variability of Wh-phrases, whose interpretation varies in the same way as that of regular indefinites does, and, secondly, from the parallel behavior of Wh-clauses and adjunct if clauses. In order to understand the relevance of the parallelism between indefinites and Wh-phrases on the one hand, and if clauses and Wh-clauses on the other, I will lay out the theoretical assumptions as well as the empirical data that Berman considers.

Recall that within the Discourse Representation theory, indefinites are analyzed as variables with no inherent quantificational force. Thus, indefinites may be bound by any operator that has scope over them. The most compelling evidence for treating indefinites this way is the quantificational variability that they display depending on the quantificational context in which they appear. In this

\textsuperscript{13}In this regard, Berman differs from Hintikka, who claims that embedded clauses like (21) can have either a universal or an existential reading.
regard, consider sentences (22) and (23), where, as the paraphrases in (22’) and (23’) reveal, the indefinite NP takes on the quantificational force of the adverb of quantification:

(22) A good car is usually expensive.
(22’) Most good cars are expensive.

(23) A good car is always expensive.
(23’) All good cars are expensive.

Recall also that the Discourse Representation theory underlies the idea that sentences are divided at Logical Form into a restrictive term, which determines the domain of quantification of a quantifier, and a nuclear scope. Any variables that are free within the restrictive term of a quantifier will be unselectively bound by it. In turn, within restricted quantification theory, it is well established that adjunct if clauses have the inherent function of serving as restrictive terms (cf. Lewis 1975, Kratzer 1978, 1986, and Heim 1982). This assumption is of crucial relevance for the

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14The observation that adjunct if clauses act as restrictive terms stems from Belnap (1970) (as cited in Berman 1991) and from Lewis (1975). What they observed is that 'if A then B' statements are quantified statements. So 'if A then B' can be paraphrased as 'All A are B'. Similarly, statements such as 'Seldom if A then B' can be paraphrased as 'Few A are B'. On this basis, Lewis (1975) concludes that the if of restrictive if clauses is not a sentential connective. Rather, it marks that the clause that it heads restricts a quantifier.
following discussion, and it explains why any indefinites contained within an adjunct *if* clause can be bound by a matrix adverb of quantification, as can be seen in (24) through (25''):

(24) The principal always finds out [if a student cheats.]
(24') $\forall_x [\text{student'}_x \land \text{cheat'}_x][\text{find out'} (\text{the principal'}) \text{student'}_x \land \text{cheat'}_x]
(24'') For all students who cheat, the principal finds out that they cheat.

(25) The principal usually finds out [if a student cheats.]
(25') $\text{MOST}_x [\text{student'}_x \land \text{cheat'}_x][\text{find out'} (\text{the principal'}) \text{student'}_x \land \text{cheat'}_x]
(25'') For most students who cheat, the principal finds out that they cheat.

(24') and (25') are the logical representations of (24) and (25), respectively, within DRT. (24'') and (25'') are the corresponding paraphrases of (24) and (25). As the representations in (24') and (25') show, once the *if* clauses

that can be either implicit or overt.
in (24) and (25) are mapped to form the restrictive term of the adverb of quantification, any variables contained in them are unselectively bound by the adverb. This explains the paraphrases in (24"") and (25""), where it is clear that the indefinite a student takes on the quantificational force of the adverb.

With this in mind, consider now the parallelism between (26) and (27) and their corresponding paraphrases. (26) illustrates a structure containing an embedded Wh-clause, and (27) portrays a structure containing a adjunct if clause:

(26) The principal usually finds out [which students cheat.]

(26"") For most students who cheat, the principal finds out that they cheat.

(27) The principal usually finds out [if a student cheats.]

(27"") For most students who cheat, the principal finds out that they cheat.

As Berman notes, sentences (26) and (27) can have the same paraphrase. Crucially, the Wh-phrase which students in (26) can take on the quantificational force of the matrix adverb, just like the indefinite a student in (27) does. On
this basis, he argues that Wh-phrases act just like indefinite variables in that they show quantificational variability, and that Wh-clauses act just like adjunct if clauses in that they allow an NP contained in them to be bound by an external adverb. Berman then extends the DRT account of indefinites and adjunct if clauses to Wh-clauses and concludes that Wh-clauses can be mapped, via copy, to form the restrictive clause of an operator and that the Wh-phrase introduces a free variable into the restriction.

A comparison between the representation in (28') and that in (29') highlights the quantificational variability effect (QVE) that shows up in embedded interrogatives. Arguably, the default universal operator in (28') is replaced by the quantificational adverb in (29'):

(28) The principal knows [which students cheat]
(28') For ∀x [student'x ∧ cheat'x] [knows' (the principal')
student'x ∧ cheat'x]

(29) The principal usually knows [which students cheat.]
(29') Mostx [student'x ∧ cheat'x][knows'(the principal') student'x ∧ cheat'x]

To sum up, the striking parallelism between indefinites
and Wh-phrases on the one hand and that between Wh-clauses and adjunct if clauses, on the other hand, provides evidence, within the framework of Discourse Representation theory, for treating Wh-clauses as serving the semantic function of restricting adverbs of quantification. As we will see, this essential part of Berman's analysis has important consequences for N-word licensing across +Wh-clauses.

In the next section, I proceed to analyze the empirical consequences that a Hintikka/Berman view of interrogative clauses as open sentences has for structures in which there is an N-word contained within an embedded interrogative complement. As we will see, an understanding of the logicosemantic nature of embedded interrogatives in turn provides an important insight into the semantic contribution of N-words, and it highlights some crucial similarities between Wh-phrases and N-phrases.

4.4 N-Words as Heimian variables

Here, I show that the structures examined in the preceding sections provide evidence for treating N-words as variables and not as quantificational elements. In particular, we will see that treating N-words as indefinite variables yields the right interpretation of the data to be analyzed.
Consider first sentence (30), repeated here from section (4.2):

(30) No me acuerdo de [cuánto me ha-IND costado nada.]  
Not I remember how much has cost nothing  
'I don't remember how much anything has cost.'

As I discussed in section (4.2), examples such as the one above point out that N-word licensing can take place across indicative Wh-clauses. Interestingly, these types of sentences have a peculiar interpretation that needs to be clarified before we proceed. As is discussed in Arnáiz (1993), sentences like (30) can only be interpreted with the paired reading of the Wh-phrase and the N-phrase. Arnáiz's observation is an important one. But there is an additional relevant detail that has so far gone unnoticed and that constitutes a crucial point in my analysis. Namely, note here that the correct interpretation of the above structure does not just involve the paired reading of the Wh-phrase and the N-phrase. Crucially, both the Wh-phrase and the N-phrase take on the quantificational force of the matrix negative operator. Thus, the exact interpretation of sentence (30) (or, at least, one prominent interpretation of (30)) is as in (31):

(31) For no x y [item x ∧ amount y] [I remember that x cost y]
That the matrix operator provides the quantificational force of both the Wh-phrase and the N-phrase can be more transparently seen in examples like (32) below, where the matrix operator is an adverb of quantification other than negation:

(32) Apenas me acuerdo de [cuánto me ha-IND costado nada.]
Apenas I remember how much has cost nothing
'I hardly remember how much anything has cost.'

(32') For few \( x \) \( y \) \([\text{item}_x \land \text{amount}_y]\) [I remember that \( x \) cost \( y \)]

The importance of comparing examples like (30) to one like (32) is the following. In (30), where the relevant matrix operator is no, one could argue that the negation actually quantifies over the matrix event variable and that the wh-phrase and the N-phrase in the embedded clause are paired under the quantificational force of an existential operator. A reading in which no in (30) quantifies over the event variable and one in which it quantifies over the embedded Wh and N-word variables are not truth conditionally distinguishable. (32), however, shows that the wh-phrase and the N-phrase are, in fact, paired under the quantificational
force of the matrix adverb. This is because apenas here does not necessarily modify the matrix predicate. That is, (32) above is not necessarily a statement about how well or how badly I remember the price of each item that I bought. Rather, (32) preferably expresses a statement about the amount of item/price pairs that I can remember. This second reading is, in fact, the most straightforward reading of (32). In any case, it is clear that these two readings, i.e. the reading in which apenas modifies the matrix predicate and the reading in which apenas quantifies over item/price pairs are distinguishable and yield different truth values. The fact that the reading in which apenas in (32) quantifies over the Wh-word and the N-word variables is available and is, moreover, the most salient reading points out that the examples examined here do in fact illustrate unselective quantification of the embedded Wh and N-word variables by the matrix quantifier. Thus, expanding the data pointed out by Bosque (1992) to include examples like (32), where the licensing operator is not negation, reveals two important points. First, sentences like (32) show that, in fact, the matrix quantifier in these structures acts as a binder for the N-word variable. Second, sentences like (32), when compared to examples like (30), highlight the fact that not only Wh-phrases, but also N-phrases display quantificational variability in embedded interrogative structures. This is
because, as can be clearly seen, the quantificational force of the N-word varies from (30) to (32). In fact, the interpretation of the N-words in (30) and (32) depends on the quantificational force of the matrix operator.

The above observations can be easily captured if we couple Berman's theory of Wh-clauses with an analysis of N-phrases as semantic variables. Thus, recall that, according to Berman's theory, the embedded Wh-clause in (30) and (32) is mapped at LF to form the restriction on the matrix adverb of quantification, and the Wh-phrase provides a variable to be bound within this domain. If, as I am arguing here, N-words are like Wh-phrases in that they introduce variables into the logical representation of a sentence, unselective binding of both the Wh-phrase and the N-phrase in (30) and (32) should obtain, given that both the Wh-phrase and the N-phrase wind up within the quantifying domain of the same adverb of quantification via restrictive clause formation. The obtained paired reading that is represented in (31) and (32'), shows that, in fact, this prediction is borne out. Neither the Wh-phrase nor the N-phrase contribute any quantificational force to the meaning of the sentence. Rather, they both take on the quantificational force of the adverb, thus behaving like variables. The paired reading that is typical of these structures is the standard paired reading effect that is found when one quantifier unselectively binds more than one
variable. Thus, two characteristics of semantic variables are highlighted by examples like (30) and (32). On the one hand, we see that the N-word does not contribute any negative or quantificational force. On the other hand, as the paired readings indicate, N-words can be unselectively bound along with other variables. Note that these facts cannot be accounted for by theories that view N-words as fully quantificational elements. In contrast, analyzing N-words as indefinite variables derives the correct interpretation of the data in a rather elegant manner.

To sum up, here I showed that a DRT analysis of embedded interrogatives along the lines of Berman (1991) provides evidence for treating N-words as variables and not as quantificational elements. In particular, we saw that treating N-words as indefinite variables yields the right interpretation of structures in which there is an N-word contained within an embedded interrogative clause. Crucially, the data examined here highlight the fact that N-words behave like semantic variables in that they show quantificational

15Recall example (7), where the three indefinites are unselectively quantified by the matrix adverb. The resulting interpretation is a triplet reading of students, professors, and papers:

If a student gives a paper to a professor, she always expects her to comment on it.

∀xyz [student(x) ∧ professor(y) ∧ paper(z) ∧ x gives z to y] [x expects y to comment on z]
variability and in that they can be unselectively bound.

Importantly, not all of the quantificational structures formed by embedded interrogatives will provide the right environment for N-word licensing. Note, for example, the contrast below:

(33) *Rara vez me acuerdo de [cuánto me ha-IND costado nada.]

Rarely I remember how much anything has cost
'I rarely remember how much anything has cost.'

(34) *Siempre me acuerdo de [cuánto me ha-IND costado nada.]

Always I remember how much has cost nothing
'I always remember how much anything has cost.'

For both (33) and (34), Berman's theory predicts that the embedded Wh-complement will restrict the matrix adverb of quantification at LF. Therefore, in both (33) and (34) the N-word that is contained within the embedded clause will be brought within the local domain of the matrix operator via restrictive clause formation. Note, however, that licensing obtains only in (33), where the operator that quantifies over the Wh-complement is downward entailing. In (34), the adverb of quantification that the Wh-clause restricts is not downward
entailing and the embedded N-word cannot be interpreted. This is expected under our assumption that N-words are negative polarity elements. The ungrammaticality of (34) is, thus, due to the fact that the polarity requirements on N-word licensing cannot be satisfied in this sentence and, therefore, the N-word cannot be appropriately interpreted in spite of the fact that it is contained within a well-formed quantificational structure.

In short, with Berman (1991), I assume that Wh-clauses are open sentences and that their inherent variable gets bound by virtue of the fact that the Wh-clause itself forms the restriction of a quantifier at LF. An analysis along these lines adequately predicts that an N-word contained within a Wh-clause that restricts a downward entailing adverb of quantification can be licensed, in spite of the fact that the N-word might be separated from its licenser by an indicative boundary.

So far, I have been factoring out of the discussion a distinction between two types of predicates that plays an important role in Berman's account of QVE in embedded interrogatives. Namely, I'm referring here to the distinction between the class of predicates that presuppose their complements (the know-class) and the class of predicates that
do not (the wonder-class). The reason why this distinction is important in Berman's analysis is that his theoretical motivation for mapping embedded interrogatives into the domain of a matrix adverb of quantification is PRESUPPOSITION ACCOMMODATION, an operation by which the presuppositions of the nuclear scope get accommodated into the restrictive clause of a quantificational structure. Thus, he predicts that all, and only, presupposed Wh-clauses will be mapped as the restrictive terms of a matrix adverb. His prediction is, in fact, largely consistent with the empirical generalization that only the complements of the know-type predicates (predicates that presuppose the truth of their complements) display Wh-phrase quantificational variability. This is expected under Berman's theory, since only complements that

16The difference in presuppositionality between the two types of complements is illustrated in (i) and (ii). In (i), that Mary went to the party is not presupposed. In (ii), however, there is a presupposition that the embedded proposition Mary went to the party is true:

(i) I wonder [whether Mary went to the party.]
(ii) I remember [that Mary went to the party.]

17Basically, presupposition accommodation is a device by which presuppositions are integrated into the discourse for the purposes of conversational felicity. For example, the predicate of the sentence A cat usually lands on its feet (from Schubert and Pelletier 1989) contains the presupposition that a cat that lands is a cat that falls to the ground. This presupposition of the predicate is accommodated into the restrictive clause of the adverb of quantification. Thus, this sentence means that Most cats that fall land on their feet.
are raised to form the restriction on an adverb of quantification should display any quantificational variability effects. Correspondingly, clauses embedded under wonder-type predicates (which do not presuppose the truth of their complements) do not display the quantificational variability effect. This is also expected under Berman's account, since nonpresuppositional complements will not be mapped within the quantifying domain of a matrix adverb of quantification. The predicted contrast is illustrated in (35) and (35'):

(35) The principal always knows [which students cheat.]
(35') For all students who cheat, the principal knows that they cheat.

(36) The principal always wonders [which students cheat.]
(36') For all students who cheat, the principal wonders whether they cheat.

As Berman points out, while sentence (35) can have the interpretation in (35'), where the adverb quantifies over students, in (36), the matrix adverb can only be interpreted as modifying the main predicate wonder (cf. Berman 1991 for more instances of predicates illustrating this contrast.) Again, this contrast follows if only the complement clause of the first predicate is mapped (via presupposition
accommodation) into the restrictive clause formed by the matrix operator.

Berman's appeal to the rule of Presupposition Accommodation as the underlying motivation for clause raising has some consequences for structures containing N-words. One such consequence is that N-words contained within embedded interrogatives that are complements to verbs of the wonder-class should not display QVE. That is, their quantificational force should not covary with that of a matrix adverb of quantification in such cases. Correspondingly, if only presupposed complements are accommodated into the restriction of a matrix adverb, then only N-words that are contained inside the complement of a know-class predicate should display QVE along with the Wh-phrase. Insofar as Presupposition Accommodation is itself subject to pragmatic and contextual influences that sometimes blurry the distinction between the two classes of predicates, the above predictions are borne out by the data. I discuss these issues in detail in the next subsection.

4.5 Presupposition Accommodation and its consequences for N-word licensing

Consider first the Spanish sentence (37). Here, the only
variable contained inside the complement is the Wh-phrase. Given that acordarse 'remember' belongs to the class of verbs that presuppose the truth of their complements, the complement clause is cast into the restriction of the matrix adverb. Accordingly, the Wh-phrase can here display the quantificational force of the adverb. This is the reading represented in (37'):

(37) *Rara vez/Apenas* me acuerdo de *[qué estudiantes hacen trampa.]*
Rarely/Hardly I remember of which students cheat
I rarely/hardly remember which students cheat.

(37') For few* [student, ∧ cheat,] [I remember student, ∧ cheat,]

Berman's prediction, thus, carries over into Spanish. Accordingly, and just as we saw before, if the embedded interrogative were to contain an N-word too, the N-word and the Wh-phrase would covary and show QVE, as in:

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18The embedded complement here is indicative, and so it is unequivocally interpreted presuppositionally.
(38) **Rara vez/Apenas** me acuerdo de **[qué asignatura ha elegido ningún estudiante.]**

Rarely/Hardly I remember of which subject has taken no student

'I rarely/hardly remember which subject any students have taken.'

(38') For few_{x,y} [student_{x} ∧ subject_{y} ∧ take_{x,y}] [I remember student_{x} ∧ subject_{y} ∧ take_{x,y}]

In contrast, consider now the sentences in (39) and (41). Here, the matrix verb is of the wonder-class and, therefore, it does not presuppose its complement.\(^{19}\) Let us first examine sentence (39), which only contains a Wh-variable:

(39) **Rara vez/\*Apenas** me cuestiono **[qué estudiantes harán trampa.]**

Rarely/\*Hardly I wonder which students cheat

'I rarely/\*Hardly wonder which students cheat.'

As expected, and in accordance with the English counterparts examined by Berman, the matrix adverb can only be interpreted

\(^{19}\)The embedded clause displays the so-called future of 'probability' in order to avoid any possible effect caused by the indicative mood. The 'probability future' ensures that the embedded clause is non-presuppositional.
as modifying the matrix predicate. That is, the adverb cannot be interpreted as quantifying over students. Thus, the sentence above does not have an interpretation in which there are a few students about whom I wonder whether they cheat. Rather, sentence (39) expresses that there are few occasions in which I find myself wondering about which students constitute the set of cheaters. That there is no QVE here is highlighted by the fact that the adverb apenas (‘hardly’) is not felicitous in this sentence. This is because, for independent reasons (perhaps selectional restrictions), apenas is not an adverb that one finds modifying a verb like cuestionarse. Since apenas in (39) does not have the option of modifying anything else but the matrix predicate, the use of this particular adverb is infelicitous in this sentence. In contrast, as the sentence in (37) above (repeated here as (40)) illustrates, apenas can felicitously quantify over a Wh-variable when one appears in its domain:

(40) Apenas me acuerdo de [que estudiantes hacen trampa.]  
Hardly I remember of which students cheat  
'I hardly remember which students cheat.'

(40') For few_x [student_x ∧ cheat_x] [I remember  
student_x ∧ cheat_x]
In conclusion, the fact that the use of apenas is infelicitous in (39), points out that the only possible construal for this sentence is one in which the adverb modifies the matrix verb.

Now, the important question is what happens in (41), where the interrogative structure also contains an N-word?:

(41) Rara vez/*Apenas me cuestiono [qué asignatura habrá elegido ningún estudiante.]
Rarely/*Hardly I wonder [which subject has taken no student]
'I rarely/*hardly wonder which subjects any students have taken.'

In (41), the interpretation of both the Wh-word and the N-word differs in a particular respect from the way in which these are interpreted in (38) (repeated here as (42)), where the predicate was of the know-class:

(42) Rara vez/Apenas me acuerdo de [qué asignatura ha elegido ningún estudiante.]
Rarely/Hardly I remember of which subject has taken no student
'I rarely/hardly remember which subject any students have taken.'
Crucially, although the judgement is a subtle one, the paired interpretation of the Wh-phrase and the N-phrase in (41) is not felicitous in the same way as the paired reading is in (42). Namely, although it is possible to interpret sentence (41) as expressing that there are few occasions in which I wonder about pairs of students and subjects whether or not the student has taken the subject, it is not possible to interpret sentence (41) as expressing that only for a few student/subject pairs, I wonder whether the student took the subject. That is, although it is possible to pair students and subjects in interpreting (41), it is not possible to pair them under the quantificational force of the adverb. This is highlighted by the fact that the use of the adverb apenas is infelicitous in this sentence, which suggests that apenas here only has the option of modifying the main predicate. This result is consistent with Berman's analysis, since he predicts...

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20The judgements seem to be the same both for the Spanish sentence and for the glossed, English equivalent. I thank Chip Gerfen for discussing the possible readings of the English gloss with me. However, I do not discard the possibility that sentence (42) may also have a reading similar to the one in (41), where the matrix adverb quantifies over the matrix predicate and not necessarily over the Wh- and N-word variables. What is important here is that in sentence (41), where the predicate is of the wonder-type, the Wh-phrase and the N-phrase are not quantified by the adverb.
that the complements of wonder-type verbs are not raised into the restriction of a matrix adverb of quantification. Consequently, an N-word contained in such a complement will not wind up within the quantificational domain of the matrix operator and, thus, it will not be bound by it.

Interestingly, note that the N-word in (41) is, nevertheless, licensed by virtue of being within the scope of the matrix adverb, which is downward entail. Arguably, both the Wh-phrase and the N-word in (41) get bound by the implicit universal quantifier that Berman stipulates acts as a default binder in interrogative structures. I conclude, then, that the acceptability of (41) derives from the fact that both the Wh-word and the N-word in this structure are locally bound by the default universal. Additionally the polarity licensing requirements of the N-word are met here by virtue of the fact that the N-word is roofed within the scope of a downward entailing quantifier. 21 The difference between (41) and (42) is that whereas in (42), the same operator can act as a binder and as a licenser for the N-word qua variable and qua polarity item, respectively, in (41), the binder and the licenser are two different operators. That is why the quantificational interpretation of the Wh-word and the N-word varies from (41)

21See Ladusaw (1993) for a definition of what constitutes the roof of a quantificational structure. For the structures that we are considering here, the roof of the N-word delimits the domain in which the N-word will be licensed.
to (42), as discussed above (cf. Ladusaw 1992 for a discussion of the fact that although sometimes the operator that creates the roof of an indefinite will also be the indefinite's binder, this is not the case in many situations.)

An interesting point that comes out of comparing sentences like (41) to sentences like (42) then, is that N-words are subject to two separate and distinct requirements, namely, the requirement of being bound by a local operator, and the requirement of being within the licensing (c-command domain) of a downward entailing operator. The first one is a requirement that must be complied with within a local domain, whereas the second one is not a local requirement. It is for this reason that in some situations, as in the one illustrated by (41) above, these two basic requirements can be satisfied by two different operators (a local binder, and a non-local downward entailing operator.) When the N-word is within the local domain of its polarity licenser, the polarity licenser operator and the binding operator for the N-word variable are one and the same, as in (42).

As I just discussed, the Spanish data examined here is consistent with Berman's distinction between presupposed...
complements (i.e. the complements of remember-type verbs) and nonpresupposed complements (i.e. the complements of wonder-type verbs). However, there is an important question raised by Berman's assumption that it is presupposition accommodation that triggers raising of an embedded interrogative into the quantificational domain of a matrix adverb of quantification. Namely, if presuppositionality is what raises embedded interrogatives into the domain of a matrix adverb in sentences like (43):

(43) **Rara vez/Apenas** me acuerdo de [**qué estudiantes** hacen trampa.]

Rarely/Hardly I remember of which students cheat
I rarely/hardly remember which students cheat.

(43') For few_x [student_x ∧ cheat_x] [I remember student_x ∧ cheat_x]

what prevents presupposed declaratives from doing the same thing (as in (44), where the indefinite a student does not show the quantificational force of the matrix adverb)?:

(44) **Rara vez** me acuerdo de [**que un estudiante** hace-IND trampa.]

Rarely I remember that a student cheats
'I rarely remember that a student cheats.'
Recall that in previous sections, I argued that presupposed declaratives raise outside of the scope of negation (and other downward entailing operators). This constitutes a generalized pattern. Thus, note, for example, that the embedded clause of the factive verb regret (a verb that clearly presupposes its complements) cannot be interpreted within the scope of a matrix negation. This is revealed by the repeatedly observed fact that a negative polarity item contained in the embedded complement of a verb like regret cannot be licensed by a matrix negation (cf. Kiparsky and Kiparsky 1971, Prince 1976, Horn 1989, etc.). The contrast between (45) and (46) illustrates this fact. Here the items highlighted in the embedded clauses are the negative polarity items:

(45) *I don’t regret [that he will do anything until it’s too late.]

(46) I don’t believe [that he will do anything until it’s too late.]

Recall also that an N-word contained within an indicative, declarative complement in Spanish cannot be licensed by a
matrix negation, as in (47):

(47) *No recuerda [que conoces-IND a ningún artista.]

Not s/he remembers that you know no artist

Arguably, this is also due to the presuppositional nature of indicative complements in general (cf. discussion in sections 2.1.5.2 and 4.2).

The question that arises is why do presupposed declaratives raise outside of the scope of negation (and other downward entailing operators) while presupposed interrogatives allow the option of being mapped within the domain of these types of operators? One possibility is that this is part of the larger question of why it is that it is only certain types of clauses, such as if clauses and interrogative clauses, that have the inherent property of forming tripartite structures in which they constitute the restriction of an operator. A second possibility is that presupposition accommodation is not what raises certain embedded complements to form the restriction of a quantificational structure. That is, it is possible that presupposition accommodation is not what produces the QVE in (43), for example. In fact, this particular aspect of Berman's analysis of embedded interrogatives has been challenged by Lahiri (1991), who proposes a different driving force for the raising of interrogatives. In the next section, I discuss how
Lahiri’s (1991) view on interrogative raising offers a possible solution for the aforementioned difference between declarative and interrogative presupposed complements.

4.6 What triggers raising of interrogative complements?:
Presupposition Accommodation versus Interrogative Raising

Lahiri argues that the distinction that is relevant for the contrast between (35) and (36) repeated here as (48) and (49), is not that between predicates that presuppose their complements and predicates that do not.

(48) The principal **always knows** [which students cheat.]
   For all students who cheat, the principal knows that they cheat.

(49) The principal **always wonders** [which students cheat.]
   #For all students who cheat, the principal wonders whether they cheat.

Rather, the relevant distinction, he claims, has to do with the fact that the two classes of predicates (the know-class and the wonder-class) have different semantic types. In particular, he claims that predicates of the know class are of
type $<s,t>,<e,t>$, that is, in a compositional approach, these predicates combine with constituents of type $<s,t>$ (the type of propositions); in contrast, Lahiri maintains that predicates of the wonder class are of type $<s,t>,t,\langle e,t\rangle>$, that is, they are the kind of predicates that combine with constituents of type $<s,t>,t$ (the type of questions). Additionally, and contrary to the classical analysis of Karttunen (1977), Lahiri also assumes that all interrogative complements (whether they are the complements of know-type predicates or whether they are the complements of wonder-type predicates) have the same semantic type, namely the type of questions, $<s,t>,t>$.23 The crucial point that comes out of Lahiri's assumptions is that know-class predicates, which are of semantic type $<s,t>,<e,t>$, can only combine directly with propositions, that is, with constituents of type $<s,t>$. Given that all interrogative complements are of type $<s,t>,t>$, the type of questions, an interrogative complement cannot directly combine with a know-type predicate, due to a type mismatch. This would erroneously predict that know-type predicates (which can only combine with the propositional type) should not be able to take interrogative complements. A rule that Lahiri calls INTERROGATIVE RAISING comes to the rescue in these

23Lahiri (1991) also argues that there are no syntactic differences between the interrogative complements of the know-type predicates and those of the wonder-type predicates, contra Munsat (1986), for English, and Sufer (1991), for Spanish.
cases by raising the interrogative complement at LF, leaving, in turn, a trace of the propositional type, \(<s,t>\), with which the \textit{know}-type predicate can now appropriately combine, as in: \(^24\)

\[(50) \ [\text{IP} \ [Q]][\text{IP} \ldots [\text{VP} \ V_{<s,t>,<e,t>}, \ldots t_i <s,t>]]\]

In sum, in Lahiri's account, \textit{know}-type predicates can only combine with interrogative complements via the rule of Interrogative Raising (IR). \(^25\)

As far as quantificational variability is concerned, Interrogative Raising in Lahiri's theory serves the same syntactic function as Presupposition accommodation in Berman's theory. That is, both rules raise the interrogative complements of certain predicates into the quantificational domain of a matrix adverb of quantification. Both accounts make largely the same predictions, since, as it happens, the predicates to which Lahiri assigns the semantic type \(<<<s,t>,t>,<e,t>>\) (the wonder-type) mostly coincide with the

\(^24\) Lahiri's Interrogative Raising rule is, thus, a type-shifting rule. The representation in (50) is from Lahiri (1991). He assumes that the raised Wh-complement (represented here as \(Q\)) adjoins to IP.

\(^25\) The rule of IR, Lahiri claims, is motivated on the basis of Partee's (1987) analysis of QR, whereby the general rule of QR is triggered by a type mismatch between a predicate and one of its arguments in configurations that are syntactically well-formed.
class of predicates that do not presuppose their complements and therefore do not trigger raising in Berman's theory. Correspondingly, most of the predicates that Lahiri terms of type $<$s,t$>,<e,t>$, that is, the ones whose interrogative complements can only be interpreted via IR, largely overlap with the class of predicates that do presuppose their complements (the know-type). The crucial distinction between the two approaches is that while Berman only distinguishes between presuppositional and nonpresuppositional complements, Lahiri makes a distinction between interrogative complements and propositional complements with respect to whether they undergo IR or not. Thus, unless something else is said, Berman predicts that all presupposed complements, interrogative or not, will be accommodated into the restrictive clause of a matrix adverb, and will thus show QVE. On the contrary, Lahiri predicts that only the interrogative complements of predicates of type $<$s,t$>,<e,t>$ (the know-type) will raise at LF into the restrictive clause of a matrix operator. The contrast between sentences (51) and (52) below is more consistent with Lahiri's account than with Berman's account:

(51) I never remember [which students cheat.]

(52) I never remember [that a student cheats.]

In (51) and (52) we find a matrix predicate of the know-type
(the class of verbs that presuppose their complements). Note that whereas which students in (51) can be interpreted with the quantificational force of the matrix adverb, the indefinite a student in (52) cannot. That is, sentence (52) cannot be paraphrased as:

(53) For no \([\text{student}_x \land \text{cheat}_x]\) [remember (I) \(\text{student}_x \land \text{cheat}_x\)]

Rather, the right interpretation of (52) is that there is never an occasion in which I remember that there is a student who cheats. That is, (52) has only an interpretation in which never modifies the matrix predicate. Now, recall that Lahiri predicts that only the interrogative complement of remember (in (51) and (52) above) will undergo IR. Therefore, the contrast between (51) and (52) is accounted for by his analysis, since the propositional complement in (52) can directly combine with remember without undergoing IR. Under Berman's approach, however, if presupposition accommodation applies equally to all presupposed complements (whether they are interrogative or declarative) the contrast in (51) and (52) remains unexplained.

The position that I take for now is that both the rules of Presupposition Accommodation and Interrogative Raising are available in the grammar. But, as two distinct rules that they
are, they have different goals. On the one hand, the rule of IR adjoins a constituent to the minimal structure in which the raised constituent will be allowed to be interpreted by the special rule that interprets type-shifted constituents. A matrix operator can in turn undergo Quantifier Construal with respect to the adjoined constituent, thus forming the quantificational structure that gives rise to the quantificational variability effect found in the relevant embedded interrogative contexts, as in:

\[(54) \text{ The principal always knows } [\text{which students cheat}]\]
\[
\text{For } \forall_x [\text{student' } x \land \text{cheat' } x] \ [\text{knows' (the principal')} \\
\text{student' } x \land \text{cheat' } x]
\]

In contrast, the rule that Berman refers to as Presupposition Accommodation (and which I think can be more accurately referred to as Presuppositional Raising, PR) ensures that a particular constituent will take widest scope, or, at least, wider scope than negation, as in (55), where the inability of the matrix negation to license the embedded NPIs indicates that the presupposed, embedded clause has been assigned wider scope than the matrix negation:

\^[26] This is, roughly, Lahiri's take on the quantificational variability effect in interrogative structures.
(55) *I don’t regret [that he will do anything until it’s too late.]

More specifically, on the one hand, the rule of Interrogative Raising is necessary within a compositional analysis in order to interpret certain interrogative structures. Without this rule, predicates of the know-class cannot combine with their interrogative clausal complements and thus cannot contribute to yielding a truth value for the sentence they are in. Once raising has occurred, quantifier construal can assign an operator scope over the raised structure, which, in this way, becomes the quantificational domain of the quantifier. On the other hand, Presuppositional Raising is not a rule that applies so that a particular predicate can combine with one of its arguments, rather, like quantifier construal, the goal of PR is scope assignment. In most cases, PR assigns widest scope to the constituent that it targets. The question that still remains, then, is: why does PR assign a constituent widest scope? I discuss this issue in the next subsection.

4.7 Presuppositional Raising, Interrogative Raising, and scope

The well-known fact that specific and presuppositional constituents in general take wider scope than negation (cf.
Lasnik 1972, Jackendoff 1972, etc.) may be able to be formalized under a recent theory of scope developed by Beghelli and Stowell (1995). Although I will not review Beghelli and Stowell's (1995) theory of scope in any detail, I will point out some basic assumptions of their theory that are relevant to the discussion here.

The basic claim in Beghelli and Stowell (1995) is that different QPs take scope in different positions. That is, they reject the standard assumption that QR applies uniformly to all QPs (cf. May 1977, 1985). They do so on the basis of the empirical observation that different QPs do in fact have particular and, sometimes restricted, scope possibilities and, therefore, a theory of scope such as May's (1977, 1985) predicts more scope permutations among different QPs than are actually attested (cf. Liu 1990 and Beguelli 1993, among others.)

Beghelli and Stowell (1995) claim that, for example, distributive universal QPs (QPs headed by each and every) generally raise to the Spec position of the Distributive-Universal phrase (DistP), where they are construed via Spec/head agreement with the distributive-universal head Dist⁰. They also posit that what they call Counting QPs (CQPs), which include decreasing QPs such as few, etc., are normally interpreted in their case positions, and they bind a
VP internal variable in their theta position. One of the arguments that Beghelli and Stowell mention in favor of their target-specific theory of scope is the fact that, in certain languages, the surface position of sentential constituents reflects their scopal interpretation. Thus, for example, they note that, as has been argued by Kratzer (1988) and Diesing (1990, 1992), the specific reading of indefinites in Germanic coincides with their overt leftward positioning within the sentence. Another case in point is Hungarian, where, as it is well known, surface constituent ordering often mirrors scopal interpretation.

Interestingly, an argument that Stowell and Beghelli make that is relevant to my concerns here is that what they call Group denoting QPs (GQPs) (including indefinite QPs, bare numerals, and definites such as the boys) move to the Spec of RefP (Referential Phrase), which they claim is the highest projection below CP, when they are interpreted specifically.

27See Beghelli and Stowell (1995) for a complete classification of QP classes and their corresponding landing sites. A lot of the empirical motivation that Beghelli and Stowell adduce in support of their theory is based on the possible and impossible 'scope permutations' among different QPs that are attested in natural language. They derive what in standard theories of scope is referred to as scope permutations from the different target positions that different quantifiers have, as well as from the assumption that a particular type of QP may be able to target more than one specific scope position.

The figure below illustrates the phrase structure that Beghelli and Stowell (1995) propose for English:29

(56) \[\text{[CP} \text{[RefP [Specific GQPs] [AgrP [CQPs, GQPs] [DiatP [DQPs]} \]
\[\text{[ShareP [GQPs] [NegP [negation and NQPs] [AgP [CQPs, GQPs]]]]]]]]]]

Following these theoretical assumptions, one could argue that Presuppositional Raising will target the RefP projection, a position where a constituent receives widest scope. Beghelli and Stowell (1995) do not make any claims about the position targeted by presupposed clausal constituents. However, given their argument that specific indefinites do raise to the Spec of RefP, and given that the notions of specificity and presuppositionality are closely related, it does not seem too far fetched to assume that presuppositional clauses may also target the RefP projection. This will account for why PR of declaratives always maps the raised constituent outside of

29GQP stands for Group-denoting QPs (indefinites, bare numerals, definites); CQP stands for Counting QPs (decreasing QPs and cardinality expressions in general); DQP stands for Distributive-Universal QPs; NQP stands for negative quantifiers. Note that the ordering of the different scopal landing sites may vary from language to language. In particular, the position of NegP has been argued to vary parametrically across languages (Ouhalla 1990, Laka 1990, Zanuttini 1991). In particular, Laka (1990) and Zanuttini (1991) argue that NegP is above AgrP in Spanish and Italian, respectively. I will not discuss here how the different scopal projections might be organized in Spanish. As we will see, what is important here is that RefP is above NegP.
negation, as is attested by sentences like (57) and (58), where the inability of the matrix negation to license the embedded NPIs is used as a diagnostic for the relative scope of the matrix negation and the embedded clause:

(57) *I don't regret [that he will do anything until it's too late.]

(58) *No recuerdo [que conoces-IND a ningún artista.]

Not I remember that you know no artist

As I argued above, however, interrogative clausal complements of know-class predicates will undergo Interrogative Raising, a rule that can be satisfied by attaching the moved constituent to the minimal amount of structure in which the raised constituent can be interpreted. Arguably, IR can be satisfied by adjunction to the VP of the matrix clause. This leaves the raised interrogative constituent under the scope of the matrix negation and other downward entailing, matrix operators, as in:30

30Arguably, once the raised clause takes scope, it will not raise further to, for example, the RefP projection. However, for now, I leave open this possibility. Note that an NPI contained in an interrogative structure that, after raising via IR, raises again to RefP would not be licensed, since it would be taken outside of the scope of an NPI licenser.
Although an explanation along the lines of Beghelli and Stowell (1995) is still tentative, it seems clear that it is an empirical fact that the interrogative complements of the \textit{know}-class predicates can raise to form the quantificational domain of a negative or some other downward entailing operator, while, on the contrary, the declarative complements of the same class of predicates (along with other nonclausal constituents, such as specific NPs) take their scope outside of the aforementioned type of operators. Presuppositional accommodation alone cannot account for this difference in the behavior of the two types of complements. Lahiri’s account of the QVE issue, however, focusses on a fundamental semantic characteristic of the types of predicates that can combine both with interrogative and declarative complements, and can derive the described difference more straightforwardly than Berman’s Presupposition accommodation rule. This is not to say, however, that something like Presupposition accommodation
(or Presuppositional Raising) is not operative in the grammar. In fact, my take on this issue is that it is Presuppositional Raising that is responsible for why indicative complements, as well as presupposed complements in general, display a tendency to take widest scope. Beghelli and Stowell’s (1995) idea that the traditional rule of QR targets specific sites provides a possible formalization for the above mentioned phenomenon. But, crucially, distinguishing between Interrogative Raising and Presuppositional Raising as two different types of rules with different goals to attain can help us understand why only certain interrogative complements (as opposed to their declarative counterparts) display QVE effects, and why only interrogative complements (as opposed to their declarative counterparts) allow long distance negative concord and N-word licensing in general across an indicative boundary.

To sum up, it seems clear that an analysis of embedded interrogatives along the lines of Berman (1991) provides a way of understanding the empirically observed fact that N-word licensing can take place across indicative boundaries in embedded interrogative contexts. Specifically, Berman’s claim that Wh-clauses have the inherent function of restricting an operator accounts for why an N-word contained in an indicative, interrogative complement can end up within the licensing and quantificational domain of a matrix quantifier. More importantly, a characterization of N-words as
logicosemantic variables, in combination with Berman's view of interrogatives as open sentences, accounts for the paired quantificational variability that Wh-phrases and N-phrases sometimes display when they appear embedded within the same clause. Here, I adopted a triggering mechanism for mapping interrogative complements into the restriction of a matrix operator that is different from the mechanism adopted by Berman. That is, I adopted Lahiri's rule of Interrogative Raising instead of Berman's rule of Presuppositional Accommodation. As I discussed, IR preserves Berman's original observation that only the complements of the know-class of predicates, as opposed to the complements of the wonder-type of predicates, display QVE. In addition, distinguishing IR from PR and casting PR within the targeted theory of scope developed by Beguelli and Stowell (1995) allows us to distinguish the different scopal behavior of embedded declaratives from that of embedded interrogatives with respect to a matrix adverb of quantification.

Before I finish this section, I would like to point out the empirical advantages that my analysis has over other attempts to explain the negative Concord phenomenon across interrogative clauses. Although this is a recently discovered paradigm, and, therefore, there is virtually no account of it in the literature, I know of two proposals, which I briefly discuss below.
Both Bosque (1992) and Arnáiz (1993) discuss the phenomenon of N-word licensing across embedded interrogatives, and they both come to claim that the reason why N-word licensing can occur across embedded interrogatives, even when they are indicative, derives from some property of the +Wh Comp. That is, although their formalization of this phenomenon is vague, they basically come to say that an interrogative boundary is transparent to the NPI licensing features of a matrix operator. Arnáiz, in particular, argues that the +Wh Comp acts as an intermediary between the licenser in the matrix clause and the N-word in the embedded clause in structures like (60):

\[(60)\ OP...[+WH...N-word]\]

Even if such an approach were to be more explicitly formalized, there are some clear reasons why the account that I propose for these structures is to be preferred. First of all, neither Bosque (1992) nor Arnáiz (1993) realized the fact that N-words display quantificational variability in some contexts. Consequently, their line of approach is not designed to account for why, under certain matrix predicates, N-words in embedded interrogative structures are not only licensed, but also bound by a matrix operator. Thus, just claiming that interrogative boundaries are transparent to negative polarity
licensing does not offer anything in the way of an explanation for how both a Wh-phrase and an N-word may wind up within the quantificational domain of a matrix operator (which constitutes a strictly local domain) in structures like (60). In contrast, adopting the view that a rule such as IR maps certain interrogative complements to form the restriction of a matrix adverb of quantification explains the quantificational variability effect in the relevant contexts, as well as the paired, quantificational reading of the Wh-phrase and the N-phrase, in a natural manner.

Another important detail that a Bosque/Arnáiz approach cannot account for is the fact that not all the embedded interrogative structures containing an N-word are interpreted in the same way. As I noted, when the matrix predicate in a structure like (60) above is of the wonder-type, an N-word contained within the embedded clause can get licensed by an appropriate matrix operator, but the N-word in this case will not display the quantificational force of the licensor. That is, the N-word in this case will not get bound by its licensor, as in (61), which, as I discussed in section (4.5), cannot have the interpretation in (61'): 
(61) Rarely/*Hardly I wonder [which subject has taken no student]
'I rarely/*hardly wonder which subjects any students have taken.'

(61') #For few_{x,y} [student_{x} \land subject_{y} \land take_{x,y}] [I wonder student_{x} \land subject_{y} \land take_{x,y}]

Recall that this is arguably due to the fact that the complements of wonder-type predicates do not undergo Interrogative Raising in order to be interpreted, and, therefore, they do not get mapped into the restriction of a matrix quantifier. In (61), then, the N-word is licensed long distance by the c-commanding matrix negation, and it is locally bound by the abstract, default universal operator that Hinttika (1976) and Berman (1991) postulate for interrogative structures.

In contrast, as we saw, when the matrix predicate is of the know-type, an N-word contained within an interrogative complement will not only be licensed by a matrix operator (if the operator is of the right kind), but its quantificational force will also vary with that of the licenser, as in (62):
(62) Rarely/Hardly I remember of which subject has taken no student
‘I rarely/hardly remember which subject any students have taken.’

(62') For few_{x,y} [student_{x} \land subject_{y} \land take_{x,y}] [I remember student_{x} \land subject_{y} \land take_{x,y}]

This is because, in these cases, the embedded complement will raise (arguably via IR) into the restriction of the matrix licensing operator, and the N-word contained within the raised complement will not only be licensed, but also bound by this operator. Note that while this distinction follows from the analysis that I propose, the Bosque/Arnáiz approach predicts that all N-words occurring in embedded interrogative contexts will be interpreted in the same way.

Finally, I claim that my explanation of the fact that only interrogative indicatives, as opposed to declarative indicatives, allow negative concord across them, as in (63) and (64), is less stipulative that Bosque’s (1992) and Arnáiz’s (1993) explanation:
Recall that Bosque (1992) and Arnáiz (1993) simply stipulate that only the Comp of interrogative clauses (as opposed to the Comp of declarative indicatives) is transparent to NPI licensing features. In contrast, the solution that I propose is based, on the one hand, upon a sound semantic characteristic of the know-class of predicates (predicates that can take either a declarative or an interrogative complement). Namely, my solution in partly based on the sound assumption that, because of their semantic type, know-type predicates can only combine directly with complements of the propositional type and, therefore, the interrogative complement of a know-type verb will have to raise, via IR, leaving a trace of the propositional type behind (cf. Lahiri 1991). The operation of IR will raise the interrogative
constituent within the quantificational domain of a matrix adverb of quantification. On the other hand, my explanation is also based on a promising and empirically motivated theory of scope, namely, that of Beghelli and Stowell (1995). Recall that, as I discussed earlier in this section, adopting the theory in Beghelli and Stowell (1995) allows for an explanation of why declarative, presupposed complements raise above negation and other downward entailing quantifiers, thus making negative concord across them impossible, as in (64) above. Making a distinction between the rules of IR (the rule that raises the interrogative complements of the know class) and the rule of PR (the rule that raises presupposed constituents), within the context of Beghelli and Stowell's (1995) targeted theory of scope, accounts for the contrast between (63) and (64) in a principled way.

31 In this way, IR allows an N-word contained within the interrogative complement of a know-type verb to be brought within the quantificational and the licensing domain of a matrix operator, and this explains the negative concord effect across the interrogative complements of the know class.

Recall also that the complement of a wonder-type verb can be combined with its predicate in situ, that is, without undergoing IR. An N-word contained within the complement of a wonder-type verb will also be licensed by a matrix negation, by virtue of being within its licensing domain, i.e., its c-command domain. However, in this case, the N-word will not be bound by the matrix adverb.

32 This has to do with the "targeted" nature of quantifier raising. Presupposed constituents target RefP, which is above NegP.
4.8 Summary and conclusions

In this chapter, I have offered an explanation for the puzzles raised by the negative concord effect across indicative Wh-clauses. Specifically, my solution incorporates a version of Berman’s (1991) analysis of Wh-clauses with the addition of some aspects of Lahiri’s (1991) competing theory of interrogatives. Crucially, I have argued that the data here provide evidence for a logicosemantic analysis of N-words as indefinite variables with polarity requirements. I have shown that on the one hand, N-words, as polarity items, must be roofed within a context in which their polarity requirements can be satisfied, and that on the other hand, N-words, as variables, must also be locally bound. I have explicitly argued that although these two requirements are separate and distinct, in certain environments, the same operator that induces the polarity licensing of an N-word may also be its binder. In other cases, however, the binder and the licenser are two different operators (cf. Ladusaw 1992, 1993). These facts account for the different quantificational interpretation of N-words in different environments.

The quantificational variability that N-words display in certain interrogative structures should hardly come as a surprise, given that this property of N-words is also illustrated in simpler structures such as (65) and (66) below:
(65) **Nunca se le olvida ningún chiste.**
Never s/he forgets no joke
'S/he never forgets any jokes.'
NO\(x\) [joke'\(x\)] [forget'(s/he) joke'\(x\)]

(66) **Rara vez se le olvida ningún chiste.**
Rarely s/he forgets no joke
'S/he rarely forgets any jokes.'
FEW\(x\) [joke'\(x\)] [forget'(s/he) joke'\(x\)]

(67) **Nunca se le olvida un chiste.**
Never s/he forgets a joke
'S/he never forgets a joke.'
NO\(x\) [joke'\(x\)] [forget'(s/he) joke'\(x\)]

(68) **Rara vez se le olvida un chiste.**
Rarely s/he forgets a joke
'S/he rarely forgets a joke.'
FEW\(x\) [joke'\(x\)] [forget'(s/he) joke'\(x\)]

As can be observed in (65) and (66), the interpretation of the N-phrases in object position varies depending on the quantificational force of the adverb of quantification. Note also that (65) and (66) differ from (67) and (68), respectively, in that in the latter pair, a regular
indefinite, as opposed to an N-word, occupies the object position. Nevertheless, (65) and (66) are able to yield the same logical interpretations as (67) and (68). Surprisingly enough, although there has been a lot of discussion regarding the fact that the interpretation of N-words varies depending on whether they appear in preverbal or in postverbal position (cf. Chapter 2), there is hardly any discussion of the fact that their interpretation also depends on that of a local operator. Thus, to my knowledge, there is no discussion in the literature of the QVE produced by examples like (65) and (66). My analysis of N-words as semantic variables offers a natural account for the parallel behavior of N-words and regular indefinites that sentences (65) through (68) illustrate.

Returning to the interrogative structures examined in this chapter, let me stress that the reason why they turn out to be so revealing for determining the logico-semantic nature of N-words is that, in addition to highlighting the quantificational variability of N-words, these structures also illustrate the N-words' ability to be unselectively bound along with other elements, such as Wh-phrases, which have independently been identified as unselectively bound variables themselves (cf. Nishigauchi 1990, Berman 1991, Cheng 1991, 33As one should expect, these sentences may also have a reading in which the adverb modifies the predicate, and the N-words (as well as the indefinites in (67) and (68)) are bound by existential closure.
among others). The parallel behavior of Wh-phrases and N-words in the examined structures, in turn, points out some crucial semantic similarities between Wh-phrases and N-phrases that, as I discuss below, have crosslinguistic significance and that provide further support (albeit in an indirect fashion) for the claim that N-words are negative polarity items.

4.9 Crosslinguistic consequences of the proposed logico-semantic analysis of N-words

The fact that in the structures examined in this chapter Wh-phrases and N-words show a parallel behavior under the scope of certain operators is not accidental. A large amount of crosslinguistic data confirm the logico-semantic similarities between Wh-phrases and negative polarity items. A clear case can be found in, for example, Chinese. As has been discussed by Huang (1982) and Cheng (1991), among others, the same set of items that are used to form Wh-questions in Chinese can also occur in the typical affective environments (such as negative environments, conditionals, etc.) that typically license negative polarity items, with an interpretation equivalent to that of indefinites such as any in English. Thus, note, for example, that in the Chinese sentence (69), the highlighted indefinite can be interpreted
as a Wh-word, thus deriving the question interpretation of the sentence, as in (69a), or, alternatively, the indefinite can be interpreted as an NPI, yielding the reading in (69b):34

(69) Guojing mei-you mai sheme
    Guojing not-have buy what

(a) 'What didn't guojing buy?'
(b) 'Guojing didn't by anything.'

Arguably, under an analysis of these Chinese indefinites as unambiguous lexical items, whether the indefinite is interpreted in one way or another depends on the quantificational force of the indefinite's binder.35

There are many other languages, besides Chinese, in which the same set of items is used both as negative polarity items and to form constituent questions. Polish, for example, is another case in point. Thus, the parallel behavior of Wh-phrases and N-phrases that I have noted for Spanish falls in line with the crosslinguistic identification of Wh-phrases and NPIs. The fact that it is a common crosslinguistic phenomenon that the same set of items can be interpreted as wh-phrases or as polarity items strongly suggests that my claim that both

34This example is from Cheng (1991), p.113.

wh-phrases and N-words in Spanish can be given the same logicosemantic characterization is on the right track.

There is a further crosslinguistic advantage for treating Romance N-words as logicosemantic variables with polarity requirements. Namely, such an analysis is in line with current views about the proper characterization of NPIs in various other languages. Thus, for example, Lee (1993) and Lee and Horn (1994) have also pointed out the variable-like behavior of any in English. Given the similar pattern of distribution of any type items in English and N-words in Romance, it would be a welcome result if both sets of items could be characterized as the same kind of logicosemantic element, with any distributional differences stemming from some idiosyncratic aspect of their particular lexical semantics. In this regard, it is also worth mentioning Dayal’s (1995) recent analysis of the negative polarity item bhii in Hindi as a variable-like, nonquantificational element. In particular, the quantificational variability effects that bhii displays in Hindi correlative structures shows a striking resemblance to the behavior of N-words in the embedded interrogative

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36cf. Lee and Horn (1994) for a lexical semantic approach to deriving the licensing requirements and the distributional pattern of any in English, and Israel (1995) for a detailed lexical semantic analysis of different classes of English NPIs.
structures that I have examined in this chapter.\textsuperscript{37}

I conclude, then, that analyzing Romance N-words as logicosemantic variables with inherent polarity requirements has crosslinguistic advantages in that, on the one hand, this analysis brings in line the parallel semantic behavior of N-words and Wh-phrases with the widely observed fact that in many languages, there is a certain class of indefinites that is used both to express negative polarity readings and to form Wh-questions. Under an analysis such as that of Cheng (1991) for Chinese, a unified analysis of these terms can be achieved if these particular types of indefinites are analyzed as semantic variables whose interpretation, as Wh-phrases or as NPIs, depends on the relevant binder. On the other hand, as I already mentioned, treating N-words as unselectively bound variables captures the similar syntactic and semantic behavior of Romance N-words and NPIs in languages as diverse as English and Hindi. In contrast, note that other analyses of N-words, in particular ones that characterize them as intrinsically negative and quantificational elements, miss completely these crosslinguistic observations.

\textsuperscript{37}I conducted my analysis of Spanish N-words in embedded interrogatives before I became aware of Dayal's analysis of bhii in Hindi correlative structures (cf. an earlier version of my analysis here in Pifar 1994). It is of crosslinguistic significance, then, that we both independently arrived at a similar conclusion based on similar structures (as are correlative structures and embedded interrogatives) in two completely different languages.
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