On Interpretive Constraints and Expletives:

The Case of the Standard French 'Ne' Element

Jeanne Cornillon

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School of Oriental and African Studies
University of London

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Abstract

This thesis studies the particle *ne* in Standard French as it appears in the *ne...pas/personne/rien* and the *ne...queXP* structures. Based on the assumptions of a syntactic theory as developed in the Principles and Parameters, the thesis makes the following main claims:

1. *Ne* is an expletive. Its function is to satisfy a structural requirement on both the expression of sentence negation and association with focus. It is semantically defective, but it constrains the interpretation of the associate term it combines with (scope-marker function).

2. Some cross linguistic variations in the expression of sentence negation subsumed under a negative concord account are due to the special status of *ne* as an expletive together with the requirement that each object must receive an independent interpretation at the interface with the Conceptual-Intentional system.

3. In the association with focus structure *ne..queXP*, the meaning of *ne...que* which is equivalent to [[*only*]] is not syntactically derived by combining a negative operator and an operator with the meaning of [[*other than*]], but built in the lexical element *que*.

The unified account of *ne* in both the sentence negation and association with focus structures makes various empirical predictions. *Ne*, as a semantically defective element, cannot be free standing combining instead with a denotating element like *pas* or *que*, nor can it rescue a negative phrase inside an island although the *ne...pas/personne/rien* complex does. *Ne*, as a (clausal) scope marker, precludes local scope interpretations of its negative associates and the element *que*. Consequently, constituent negation is expressed by *pas/personne/rien* alone. The *que* element which combines with *ne* is excluded from positions where focus particles typically have local scope.

In conclusion, cross linguistic variations cannot be reduced to structural constraints, interpretive requirements must also be taken into consideration.

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Introduction

I work here with the Minimalist program (MP) in the Principles and Parameters framework. In the MP the levels of derivations are reduced to the levels interfacing with the Articulatory and Phonetics (A-P) and Conceptual Intentional (C-I) output systems. Furthermore, I take the view that, besides the computational component (the grammar itself) which drives/regulates how words combine together and relate to each other, the output systems also apply constraints on the organisation of the grammar. The main component of the MP within which I propose to look at a particular linguistic problem namely the expression of Standard French (StF) sentence negation and association with focus is the checking theory, but I also capitalise on the interpretive requirements imposed by the C-I system on the computational system to derive some of the specific syntactic properties of the constructions. In standard French, the *ne...pas/personne/rien* structure and *ne...que*XP structure express sentence negation and association with focus. This thesis has several objectives. I propose first to unify the two structures under a single analysis. I also want to insure that the analysis of negation proposed here for StF fits into the larger picture of how negation, more precisely sentence negation, is expressed in negative concord (NC) languages while deriving its particularities. The same type of inquiry is taken for the *ne...que*XP structure. I propose to derive some of its syntactic properties partly from the more general account of association with focus as proposed by Rooth (1985;1992) (*ne...que*XP functions essentially like *only*XP), and partly from its obvious similarities with the StF structure for sentence negation.

1. The Checking Theory

In general terms, the satisfaction of output conditions sometimes requires being able to express the dependency which holds of two non contiguous elements either categories or features. This is possible by appealing to the notion of "Chain". Chains may be trivial (one membered) or non-trivial (two or more members). In the principles and parameters (P&P) framework, typical cases of trivial chains, limiting ourselves to L-related chains, are arguments receiving inherent case in theta positions[1]. In the case of non-trivial chains, we

[1]In MP, a fundamental asymmetry exists between case assignment (a feature checking operation) performed above the VP complex and theta role assignment performed inside the

need to make further distinctions. Non-trivial chains can either be defined as resulting from movement or expressing a special relationship between two non contiguous elements in a string. In the first case, we work with a derivational model, in the second, with a strictly representational one. Chomsky's (1995) MP model is assumed to be a mixed model. It is derivational in principle since all chains result from the move α (attract α to be more precise) operation rather than a form chain instruction linking two formal objects (set of features) as proposed by Brody (1995). Some operations however require being able to look at representations (ie. the history of the derivation represented by the object chain). In particular, chains are the objects which the interpretive principles (principle of Full Interpretation (FI)) operate on at the interface with the C-I system. In Brody's (1995) framework, it is stipulated that "it is chains and not categories that get interpreted at the interface", and, equivalently, in Chomsky's (1995) FI requires that "every "symbol"(legitimate objects at LF are chains 1995:194) must receive an external interpretation by language independent rules". Finally, in the case of non-trivial chains created by movement, we distinguish "overt movement" from "covert movement" which can be equivalently rephrased in terms of Chains. A Chain is either defined as the relationship between a full category and its copy or a full category and its feature (featural chains).

Turning to the checking theory, the process of affixation in the syntax has been replaced by the introduction of fully inflected lexical items together with a set of formal features which must be "checked".

Checking can first be understood as a configuration. It involves a Spec-Head configuration which holds between a lexical item (LI) specified for a formal feature and the head of a functional projection (FP) bearing a matching formal feature. Once this relation is established the formal features on the head (and the specifier) are checked.

Nevertheless, checking mostly is a formalisation of movement. A formal feature F' on a FP head must enter into a checking relation. Movement of the feature F of LI to the specifier or head of FP bearing F' creates a checking configuration. Triggering of the movement operation however is highly constrained. It only occurs when (1) applies:

(1) K attracts F if F is the closest feature that enter into a checking relation with a sublabel of K (1995:297).

VP complex.

The restrictions on movement build in the definition in (1) can be made more explicit as follows. Firstly, movement defined in terms of attraction is driven by a feature of the target. Secondly, the checking relation does not have to hold for all features of the target K, but only a subset of them: the non interpretive features. If we make the economical hypothesis that in order to motivate movement the structure must be modified in some ways, and, in particular by a subsequent procedure of deletion followed by erasure of the relevant feature(s), then interpretable features, which cannot be deleted since they are relevant to the interpretive component, give rise to a superfluous movement operation. To put it differently, the matching of two interpretable features does not alter the structure in ways other than creating a new features configuration therefore the target interpretable features do not attract. In situ wh-phrases are a case in point. Although C^0, the head of a FP carries the formal feature Q, Q is interpretable and it does not trigger movement of Q' the feature which the wh-phrase in situ is also specified for. Binding is posited instead:

(2) Q ta shuo Q'shenme? Chinese
she says what
what does she say?

The +/- interpretable distinction also holds of F of LI. This allows us to distinguish between the assignment (checking) of case and agreement. Agreement but not case can be assigned more than once. This is insured on the one hand by the deletion of the -interpretable case feature. For instance in (3), the NP/DP *John* cannot raise any further to check the case feature of the higher IP since its case feature has been deleted and erased in the lower IP. The NP/DP in (3) is so to speak "frozen in place". On the other hand, the specification of agreement features on a NP/DP as interpretable allows the same NP/DP to enter into several checking relations as illustrated in (4) below:

(3) *John seems [that t is intelligent]

(4) $[_{IP}$John is $[_{AgrP}$ t' Agr $[_{AP}$ t intelligent]]

In (4), *John* checks its agreement feature under the AgrP of the small clause, and, again, in the higher AgrP (IP in the example) where it raises driven by the strong EPP/ nominative case feature of the target I.

Thirdly, the notion of "closest feature" can also prevent movement from taking place. The formalisation of closest feature is still vague, but it implicitly rules out super raising in (5a) and accounts for the wh-island effects in (6b).

(5) a. *John seems that it was told t [that IP]

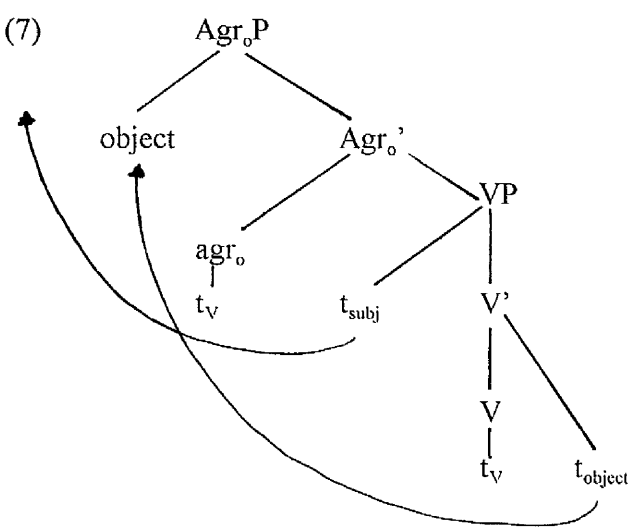
b. *seems that it was told John [that IP]

(6) a. guess which book Q' they remember t' Q to give t to whom

b. *guess to whom Q' they remember which book Q to give t_1 t_2

Starting with the derivation at (5b) raising of *John* across *it* giving (5a) is a superiority violation. In (6), we start the derivation where *which book* is in the specifier of the lower CP. Q' is inserted and must be checked. Both *which book* and *to whom* are specified for a Q feature, but Q' only attracts the 'closest' feature; namely in (6) the Q feature on *which book* (not represented in the derivation in (6a)). Raising of *to whom* in (6b) across *which book* is a violation of closest feature and leads to an ill-formed derivation. "Closest" is also relativised by introducing a derivational notion of equidistance which, for instance, allows object raising to the Agr_o node across a subject trace. This is illustrated below:

(7)



Raising of the verb in (7) is assumed to enlarge the minimal domain so that the complement and specifier positions of the VP are as close as each other from the target Agr_o. The object being equidistant to the subject trace from the Agr_o position insures that (7) does not violate (1).

Fourthly, movement can also be brought to a halt when checking takes place under a Merger

operation. Merger, like movement is a generalised transformation. Both operations are structure building (they project/expand the structure) and can check an unchecked feature[2]. The Merger operation also differs from Move. It selects F of LI from the numeration rather than from the derivation and it does not take place after Spell-Out in accordance with the constraints imposed by the output systems A-P and C-I on the interface levels.

Finally, movement is subject to a delaying procedure. On economical grounds, the feature "F [should]carr[y] along just enough material for convergence (1995:262)". We have seen that what needs to be checked is a feature F hence minimally F (FF to be more precise) moves. However, if the derivation occurs pre Spell-Out it is subject to the interface requirements imposed by the A-P output system. All elements must receive an independent interpretation at the interface by FI, but A-P does not interpret a feature F or a bundle of features FF. Satisfying FI before Spell-Out therefore requires pied piping of the whole category specified for F. On economy based assumptions, movement of F is thus delayed until after Spell-Out. However, empirical observations show that whole categories do appear displaced from the locus of their interpretation. Movement before Spell-Out must receive an explanation. This is made possible by assuming that the non interpretive features of the target can vary along the -/+ strong dimension. A strong feature on the target (strong features are always -interpretable) must be erased when inserted. In this case, movement of F together with pied-pipping of the whole category (by FI) must take place before Spell-Out. For instance, English C^0 is specified for a strong Q feature. The wh-phrase *who* therefore raises overtly to the specifier of CP yielding (8):

(8) $[_{CP}$Qwho Q+ did $[_{IP}$John see t]]?

This concludes our brief overview of the checking theory on which I implicitly rely to account for the syntax of sentence negation and association with focus in StF.

2. Outline

Chapter 1 asks if sentence negation realised as an autonomous negative projection is a UG

[2] "Notice that a checking relation can be established by Merge" (Chomsky 1995: 290).

invariant, and empirically what should be the representation of sentential negation in Standard French (StF). I show that the evidence given by most previous analyses does not argue for an autonomous Neg projection with *ne* as its head and *pas* its specifier. I propose that in the overt syntax the element *ne* is in a checking configuration with a negative feature which is part of another head (tense or agr); *pas* being adjoined to a lower maximal projection.

Chapter 2 addresses the issue of locality in Negative Concord (NC) dependencies and the relationship between locality and the semantics of NC terms. I propose that although NC terms are indefinite terms, NC dependencies are best described in terms of a neg feature movement analysis. This movement analysis of NC dependencies is thus divorced from the semantics of NC terms.

Chapter 3 proposes that the *ne* as an expletive hypothesis explains why in StF the two parts negation *ne...pas* is needed, although I take the view, following Ladusaw (1992-96), that in NC languages, sentence negation minimally requires a single neg morpheme.

I show that the expletive *there/it* and a non A related expletive *do* are both semantically vacuous and they are members of non trivial chains. I extend this definition of expletive to the StF *ne...pas* structure. *Ne* is an expletive negative which must combine with an associate (eg. *pas*). I then argue that the scope marking properties of *ne* are not incompatible with its expletive analysis. Another consequence of a Chomsky's style analysis is that elements like *no/non/n't* are not expletive terms since they can license sentence negation on their own. Lastly, the problem of the preverbal complex *personne ne* is addressed. I consider several alternatives including lack of dynamic agreement in StF, and neg feature checking by incorporation of the clitic *ne* (Rizzi and Roberts 1989).

In Chapter 4 argues that the *ne* as an expletive analysis generalises to the association with focus structure *ne...que*XP; the associate here is *que* which has a denotation equivalent to that of *only*. Rooth's (1992) semantic account of the association with focus structures chosen at the onset is also revised to integrate some syntactic requirement upon their realisation. The overt realisation of the abstract scope operator as *ne* predicts that the *ne...que*XP structure is unambiguous with respect to its scope interpretation unlike *only*XP. The focus phrase in the case of *ne...que*XP must also be identified in the overt syntax: *Que*, in particular, must c-command the focus element. This syntactic constraint explains in turn why clitics never qualify as focus elements or why if *que*'s c-command domain is empty the sentence is ill-formed.

Chapter 1

Sentence Negation in Standard French: The structural Answers

0. Introduction

In Standard French, *ne* can combine with a constituent like *pas* or *personne/rien* to express sentence negation (1a); it can occur alone (1b); or it can enter in construction with focus (1c).

(1) a. Léa n'aime pas les fruits
Léa does not like fruit
b. Je crains que Léa n'aime les fruits
I am afraid that Léa likes fruit
c. Léa n'aime que les fruits
Léa only likes fruit

The main objective of this thesis is to provide an analysis for Standard French sentence negation as in (1a) with reference to the different constructions in which the *ne* element participates (eg.1b); the structure in (1c) being the subject of a separate chapter.
In order to further delimit the scope of the investigation, a few general remarks are needed about the treatment of French dialects (Spoken and Standard) and French as a language across time (ie Old /Standard) in the Principle and Parameters framework, P&P for short. Following P&P, I assume that there is no language/dialect differences and that each language/dialect[1] corresponds to a different steady state of the language faculty. Moreover, P&P is a synchronic framework so the notion of language across time is not defined. Concretely, it means that Old, Spoken and Standard French are understood to be distinct dialects refering to different steady states of the linguistic faculty. In other words, the Minimalist analysis of sentence negation proposed here seeks to account for the *ne...pas* construction in (2a). The data in (2b) and (2c) respectively from Old French and Spoken French refer to distinct languages and they are therefore set aside from the main discussion although they might at times inform it.

[1]I use the term dialect/language indiscriminately.

(2) a. les barons francais ne doivent pas l'oublier

French barons must not forget it

b. baruns franceis ne.l deivent ublier (Chanson de Roland circa 1125)

French barons must not forget it

c. les barons francais doivent pas l'oublier

French barons must not forget it

The main theoretical issue addressed in this chapter is whether there is any motivation behind the hypothesis that sentence negation in natural languages is structurally represented as a separate functional projection, the NegP. I propose to show with reference to StF that the motivations behind the NegP as a UG invariant are weak and, that, in the case of Standard French, sentence negation is realised as a neg feature on the Agr functional projection which is checked by *ne*; *pas* being adjoined to a lower maximal projection.

The chapter is organised as follows. In section 1, I give some elements of the semantics of negation and discuss its syntactic realisation in Standard French (StF). In section 2, I review the evidence for claiming that the X-bar theoretic status of the elements *ne* and *pas* are respectively that of a head and an A' constituent.

In section 3 I look at the motivations for the NegP. In 3.1 Pollock (1989) proposes that *ne* is the head of the NegP and *pas* base generated in its specifier position. In other words, the NegP analysis seeks to capture the strong relationship which holds between *ne* and *pas*. In 3.2.1 Ouhalla (1990) generalises the NegP hypothesis to other languages arguing that the NegP is UG invariant and what is parametrised is (I) the position of the NegP inside the IP structure (ii) the overt realisation of the head or specifier of the NegP. In 3.2.2, Zanuttini (1990) also discusses the variations in the position of the NegP in Romance languages. The NegP captures the overt position of the pre vs post verbal morphemes of negation (NegP1; NegP2). Zanuttini (1997) in 3.2.3 establishes a more precise categorisation of NegP types (Neg1...NegP5). In 3.3 the NegP hypothesis is adopted in a different form by Hirschbuhler and Labelle (1992). Although, Hirschbuhler and Labelle (1992) propose to analyse *pas* as a standard VP adverb, they argue that a Neg projection of which *ne* is the head is independently needed to account for the overt linear order of the StF structure *pour ne pas que*.

Section 4 introduces the Neg Criterion which requires that a Spec-Head relation must hold by LF between two negative elements in the NegP (Zanuttini 1990, Haegeman and Zanuttini

1992 and Haegeman 1995). In other words, the NegP is the position where the Neg Criterion, a licensing requirement on sentence negation, is satisfied.

Section 5 considers departures from the NegP hypothesis. In 5.1 Ernst (1990) argues that, for an adequate analysis of English *not*, we must drop the hypothesis that, in natural languages, an independent neg category exists alongside tense and C^0. Laka (1990) in 5.2 also argues that sentence negation is not instantiated as the NegP, but a more abstract projection called SigmaP which refers back to the discourse notion of affirmation and denial. In the last section (6), I consider the hypothesis that sentence negation in Standard French reduces to the instantiation of a neg feature on an existing functional projection. I show that in StF, unlike in the case of say Standard Arabic, morpho-syntactic evidence is lacking to motivate the NegP. In particular, the locus of sentence negation is situated as least as high as the tense node in most Romance languages; a position which in StF roughly corresponds to *ne's* position, and can only host clitic elements. If a NegP is assumed then it must be generated in a lower position, for instance where *pas* occurs. Consequently, multiple neg target features can co-exist in the structural representation of sentence negation. On the other hand, if we assume that Standard French sentence negation is realised as a neg feature on AgrP, a position which is not accessible to XP categories, and the adverb *pas* in particular, then we can explain why in order to express sentence negation in StF the negative clitic *ne* is needed.

1. Expressing Negation

This section introduces some notions of the semantics of negation in natural languages and looks at its syntax in Standard French.

1.1. The Semantics of Negation

Semantically, sentences take truth values as their denotations (F or T) or (1; 0). Sentence negation is taken here to be a function from truth values to truth values (eg. t->t)[2] which, roughly speaking, switches the truth value of a sentence from true to false or vice versa

[2] Horn (1989) argues that sentence negation is in fact VP-negation ie a function from <e,t>to<e,t>.

depending on the model. So, for instance, if in a given model (3a) is true, then the truth value of its negative counterpart in (3b) is false in the same model.

(3) a. Malo saw Léa

b. Malo did not see Léa

Negation can also have scope over constituents distinct from the sentence. For instance, negation can be defined as a function which applies to an AdjP constituent as illustrated below. In this case, we are dealing with constituent negation.

(4) not sad, John arrived

Moreover, the negative meaning can be built in the lexical meaning of a word. So, for instance, English *no one* is standardly characterised as a generalised quantifier which denotes the set of sets of entities such that their intersection with the set of persons yields the null set.

(5) $[[\text{ no one}]] = \{ X \subseteq U: |\text{persons}| \cap X = \emptyset \}$

Elements like *personne, rien, aucun, plus, jamais, guere* in Standard French, which are refered to as negative concord terms can also contribute to the expression of negation. We set aside here questions arising as to whether they are 'semantically complex' constituents whose potential negative force is an integral part of their meaning, or whether they are more loosely connected to the negative meaning and lexically correspond to existential quantifiers or variables subject to existential closure. This issue however is discussed at some length in chapter 2.

1.2. The Syntax of Negation in the Standard French Dialect

In Standard French, negation can be expressed by two types of structure. Firstly, the discontinuous complex *ne* + *pas* expresses sentence negation. In other words, sentence negation in StF is not reducible to the single element *ne*, as in (6c), or *pas*, as in (6b).

Sentence negation StF

(6) a. je n'aime pas les fruits

I don't like fruit

b. *j'aime pas les fruits

I don't like fruit

c. *je n'aime les fruits

I don't like fruit

Secondly, *pas* alone is used to negate phrasal constituents distinct from IP.

Constituent negation StF

(7) a. l'histoire est devenue pas triste (Williams 1994)

the story became not sad

b. *l'histoire n'est devenue pas triste

the story became not sad

So, in (7), the AdjP *triste* is modified by the constituent negation marker *pas*. It is interesting to note that Spoken French (SpF) uses the same strategy to negate sentential and non sentential constituents. In both cases *ne* is absent.

Sentence negation SpF

(8) a. Marie voit pas l'éléphant

Marie doesn't see the elephant

b. *Marie ne voit pas l'éléphant

Marie does not see the elephant

Constituent negation SpF

(9) a. l'histoire est devenue pas triste (Williams 1994)

the story became not sad

b. *l'histoire n'est devenue pas triste

the story became not sad

Negative concord terms in StF display the same pattern of grammaticalization as that of *pas*. *Personne/rien* is linked to the element *ne* when used sententially, but functions as a free

standing negative modifier when it has non-sentential scope.

sentence scope

(10) a. Marie ne voit personne
Marie does not see anyone
b. *Marie voit personne
Marie does not see anyone

constituent scope

(11) a. un livre sur rien est invendable
a book about nothing is unsaleable
b. *un livre sur rien n'est invendable
a book about nothing is unsaleable

Thirdly, *ne* can sometimes express negation on its own when selected by the verbs *cesser*, *oser*, *daigner*, *pouvoir* and *savoir* in the sense of 'to be sure of'.

(12) a. Il ne cesse de parler (Grevisse 1986)
He does not stop talking
b. je ne sais que faire
I do not know what to do
c. elle n'osa tourner la tête
She did not dare turn her head

I would like to argue however that negation expressed by *ne* alone is a non-productive process since there are stringent restrictions imposed on this specific use of *ne*. Firstly, only the above verbs with some additional requirements on the type of complements they subcategorise for, can be negated by *ne* alone. So, for instance, *ne* cannot express negation with the verb *aimer* in (13a), or when one of the above verb selects a finite complement in (13b).

(13) a. *Léa n'aime les fruits

Léa does not like fruit

b. ???je ne sais quand je reviendrai

I do not know when I come back

Secondly, the complex *ne...pas*, which is the syntactic realisation of sentence negation, can always be used as an alternative (14).

(14) a. Il ne cesse pas de parler

He does not stop talking

b. je ne sais pas que faire

I do not know what to do

c. elle n'osa pas tourner la tête

She did not dare turn her head

I therefore take it that the examples in (12) correspond to quasi unanalysed forms similar to idioms, and the generalisation that negation in Standard French cannot be expressed by the sole use of *ne* still holds.

To sum up so far, in Standard French, *ne* is obligatory when negation has sentential scope and it must combine with *pas* or a NC term like *personne/rien* in order to express negation. It is prohibited when the scope of the negative element is non-sentential.

2. The Constituents of StF Sentence Negation

The X-bar theoretic status of *ne* and *pas* is fairly uncontroversial. It is generally agreed that *ne* should be analysed as a head and *pas* as a XP constituent. I propose to look at the evidence in section 2.1 and 2.2.

2.1. Ne as a X^O Element

The head constituent status of *ne* is partly based on its distributional properties. In particular, in tensed clauses, *ne* is related to the tensed verb, and like the tensed verb is subject to Aux to Comp inversion.

(15) ne voit-il pas Helene?
does he not see Helen?

Moreover, as noted by Kayne (1989) *ne* blocks long clitic climbing. Although French does not have long clitic climbing on the same scale as null-subject Romance languages (eg. Italian or Spanish), it is possible to raise a pronominal clitic into the higher clause of a causative sentence.

(16) a. Jean a fait manger sa soupe à Marie
Jean has made Marie eat her soup
b. Jean lui a fait manger sa soupe
Jean has made her eat her soup

However, when the element *ne* intervenes between the extraction and landing site of the pronominal clitic in (17c), the resulting derivation is not well-formed.

(17) a. Jean ne lui fait pas manger sa soupe
Jean hasn't made her eat her soup
b. Jean fait ne pas manger sa soupe à Marie
Jean hasn't made Marie eat her soup
c. *Jean lui fait ne pas manger sa soupe
Jean has made her not eat her soup

As proposed by Rizzi (1990), (17c) is ill-formed because of a Relativized Minimality violation. I give the definition of Relativized Minimality below:

(18) (I). Relativized Minimality: X α-governs Y only if there is no Z such that:

a. Z is a typical potential α-governor for Y,

b. Z c-commands Y and does not c-command X

where the variable notion of α-government ranges over head and antecedent government. As antecedent government is a property of chains it is then natural to distinguish three sub-cases, depending on whether Y is a trace in an A-chain (NP movement), in an A' chain (wh-movement), or in an X^0-chain (head movement):

a. Z is a typical potential antecedent governor for Y, Y in an A-chain =Z is an A specifier c-commanding Y.

b. Z is a typical potential antecedent governor for Y, Y in an A'-chain =Z is an A' specifier c-commanding Y.

c. Z is a typical potential antecedent governor for Y, Y in an X^0-chain =Z is a head c-commanding Y.

(1990:7)

The clitic *lui* cannot raise across *ne* which is an intervening W-compatible governor (where W is a variable ranging over A, A' and X^0 constituents) and prevents the pronominal clitic from governing its trace. Under the standard assumption that clitics are head constituents, then in (17c) we are dealing with X^0 relativised minimality effects.

2.2. *Pas* as a X^{MAX} Element

The analysis of *pas* as an A' constituent is supported on the one hand by *pas*'s distribution, and on the other by relativised minimality (RM) effects. Firstly, *pas* occurs in positions where adverbs which are analysed A' elements occur. This is illustrated below:

(19) a. Jean a vu récemment Pierre
Jean has seen recently Pierre

b. *Jean récemment a vu Pierre
Jean recently has seen Pierre

c. Jean a récemment vu Pierre
Jean has recently seen Pierre

(20) a. Jean n' a pas vu Pierre
Jean has not seen Pierre
b. *Jean ne pas a vu Pierre
Jean has not seen Pierre
c. *Jean n' a vu pas Pierre
Jean has not seen Pierre

Williams (1994:167) argues that because *pas* distribution as shown above is narrower than that of adverbs then *pas* must belong to the category "adverb".
The other piece of evidence for analysing *pas* as a base generated A' constituent is that French negation blocks A' movement of adjunct wh phrases.

(21) a. combien ont-ils lu de livres?
how many have they read of books
b. *combien n'ont-ils pas lu de livres?
how many have they not read of books

Following Cinque (1990), adjunct wh-phrases are non D-linked elements hence their traces must be antecedent governed unlike arguments. Given RM, we explain the ungrammaticality of (21b) as follows. The wh-adjunct and its trace are separated by an A'compatible governor which prevents the trace from being properly governed. *Pas* must therefore be an A' constituent.

2.3. Conclusion

To sum up so far, it is safe to conclude that the X' bar status of *ne* and *pas* is respectively that of a head and an A' constituent. In the rest of the chapter, I ask whether a NegP is independently needed in the syntax in order to express sentence negation.

3. The NegP Hypothesis: The Base Generated Account

In this section, I present the arguments which motivate the NegP. These are twofold. Firstly, the functional projection can represent the underlying relation of the two constituents of a

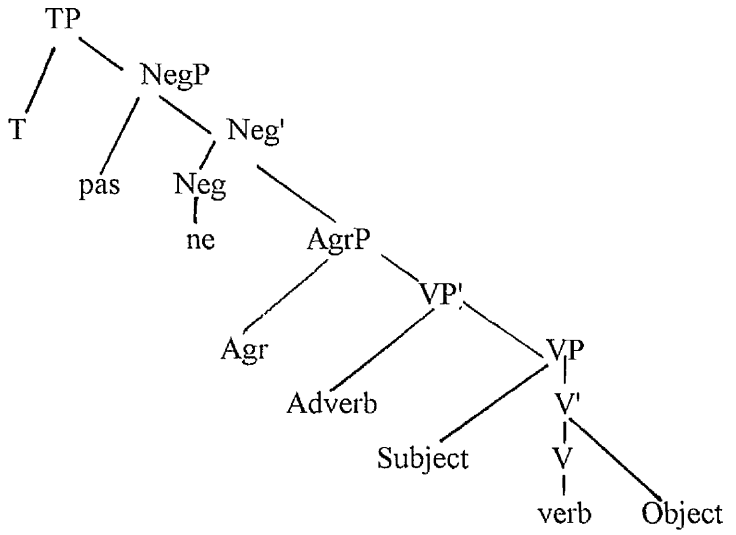
discontinuous sequence in the overt syntax. Secondly, the NegP allows us to retrieve the word placement of the negative marker(s) in the overt syntax.

In section 3.1, I present the base generated account of sentence negation in StF and English where the negative elements are base generated under a unique NegP and the linear placement of various sentence constituents is derived through V movement and, in the case of StF, the clitic properties of *ne* (Pollock 1989). In 3.2, I introduce Ouhalla's (1990) and Zanuttini's (1990) applications of the NegP hypothesis and revisions of it in the light of the new facts arising from the Romance languages data, Turkish and Berber. Zanuttini (1997) clearly departs from the NegP hypothesis as capturing the relationship of a morphologically discontinuous sequence of negative markers. Instead each morpheme of negation occupies a NegP. Finally, in 3.3, I review Hirschbuhler and Labelle (1992) who maintain that there exists an independent NegP of which *ne* is the (non-clitic) base-generated head. However, *pas,* is not base generated in the specifier of the NegP as before, but adjoined to a lower Maximal projection.

3.1. Pollock (1989)

Pollock (1989) proposes that, in StF, *ne* is the constituent head of an independent maximal projection, the NegP while the adverbial quantifier *pas* is generated in its specifier position. The NegP selects the VP in a split Infl structure such as the one in (22) where there is a unique base position for adverbs in VP', except for *pas* in the Spec of the NegP.

(22)



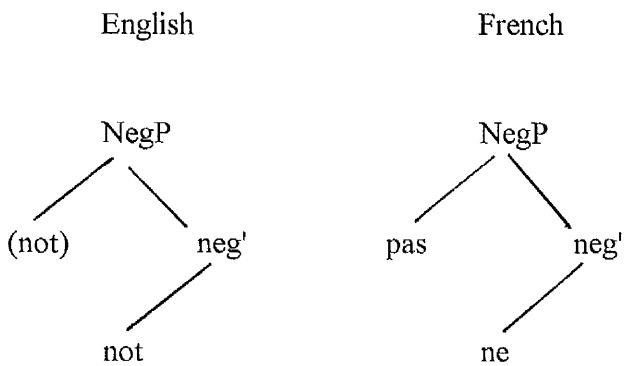
The Spec of the NegP hypothesis means that *pas* occupies a position which is higher than the standard VP' site of adjunction for adverbs. The hypothesis is partly motivated by the different distribution of *pas* and adverbs in French infinitivals where adverbs may follow the [-fin] verb whereas *pas* may not as illustrated below.

(23) a. ne pas boire
not to drink
b. *ne boire pas
not to drink

(24) a. souvent boire
to often drink
b. boire souvent
to often drink

Base generating *pas* under the Spec of the NegP also allows Pollock to reflect the strong interdependency between *ne* and *pas* while maintaining that sentential negation is realised under a unique functional projection cross linguistically:

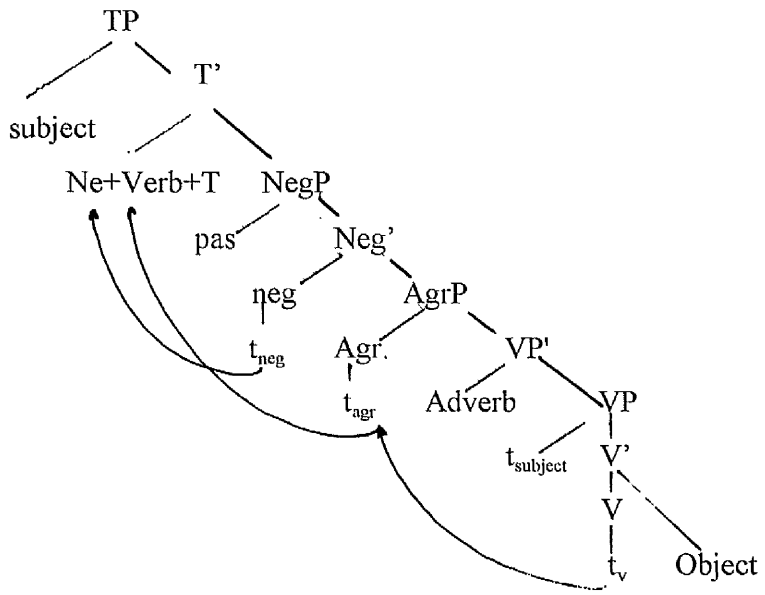
(25)



Pollock proposes that the verb moves overtly in order to derive the linear order of the various constituents within the IP structure. The ordered sequences adverb/lexical verb and lexical verb/adverb as well as *pas* placement are differentiated in terms of the presence or absence of long/short V movement. The structure in (22) is therefore kept constant, the assumption being that French finite and infinite clauses only differ in the feature specification of Tense

which drives V movement. Following Emonds (1978), Pollock assumes that by Spell-Out the lexical tensed verb in French is adjoined to Tense. In Pollock's presentation tensed verb movement is in two steps, first adjoining to Agr then to Tense according to the Head Movement Constraint or some updated version of it such as the Minimal Link Condition:

(26)



In contrast, [-fin] lexical verbs do not undergo long movement as defined above instead they stay in situ. Long verb movement accounts for the linear placement in (27a) where V linearly precedes *pas* whereas its absence in [-fin] clauses means that the verb linearly follows it in (28).

(27) a. tu ne viens pas souvent
you don't often come
b. *tu ne pas souvent viens
you don't often come

(28) il dit ne pas souvent venir
he says of not coming often

It is the same distinction (eg absence vs presence of long V movement), all parameters being otherwise kept constant in the structure given in (26) which accounts for the difference between the French and the English word order of the lexical verbs in [fin]clauses where the adverb adjoined to VP precedes *drink*, but follows *boit*:

(29) a. John boit souvent de la biere
b. John often drinks beer

The long V movement analysis also provides an account for *be/etre* and *have/avoir* placement in the [fin] English clauses in (30) and the [-fin] French and English clauses in (31) below :

(30) John is not often happy
(31) a. to be not often happy[3]
b. n'être pas souvent heureux

As a result of head movement, *be/etre* and *have/avoir* occupy the TP at surface level (optionally so in the [-fin] clauses), and therefore dominate both the NegP and its constituent *pas/not*.

Keeping to the assumption that adverbs including *pas* are unmovable, Pollock introduces a further option in the case of French infinitives and past participles: short verb movement is allowed. That the [-fin] verb may raise to the intermediate position Agr, but need not to accounts for the difference in the placement of the adverb in (24) reproduced below:

[3] Prescriptive grammars do not accept it but some speakers of English do.

(24) a. souvent boire
to often drink
b. boire souvent
to often drink

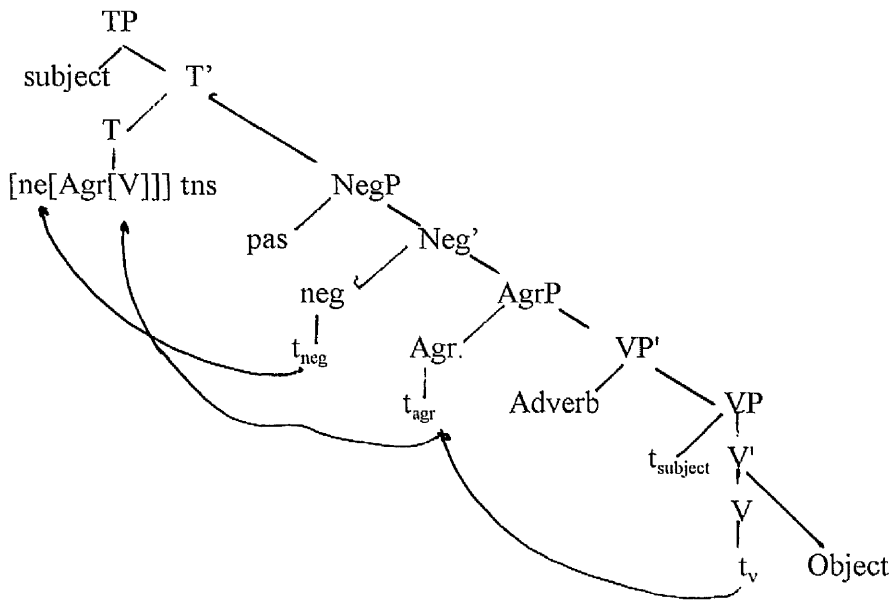
In (24a) *souvent* is left adjoined to the VP while the lexical verb remains in its base position the terminal node V. (24b), on the other hand, is the derived order resulting from verb movement across the adverb in VP' to the Agr node dominated by the NegP. Short verb movement also correctly rules out the ungrammatical sentence in (32b).

(32) a. ne pas boire
not to drink
b. *ne boire pas
not to drink

(32) shows that *pas* can only occur to the left of an infinitive or a past participle. This is because, despite the availability of short verb movement, the NegP to which *pas* is Spec adjoined is higher than the Agr projection to which [-fin] V can optionally move.
Pollock's descriptive account of obligatory verb movement or the lack of it is motivated by the interaction of two principles independently needed in the syntax, namely theta theory and quantification theory. If we assume that the [fin]tense node hosts a [+/- PAST] operator which must bind an event variable whereas the [-fin] tense node does not then obligatory verb movement in [fin] French clauses can be derived as follows: The verb raises through Agr to Tense and leaves a variable which can be bound by the [+/- PAST] operator satisfying quantificational theory. The same explanation is available to *have* and *be* in English [fin] clauses. The lack of obligatory verb movement in [-fin] clauses simply follows from the generalisation that a [-fin] Tense node does not have the [+/-PAST] operator. In this case, the verb can remain in sit and quantificational theory is satisfied vacuously. Pollock imposes a second constraint on verb movement in order to explain the contrast between tensed lexical

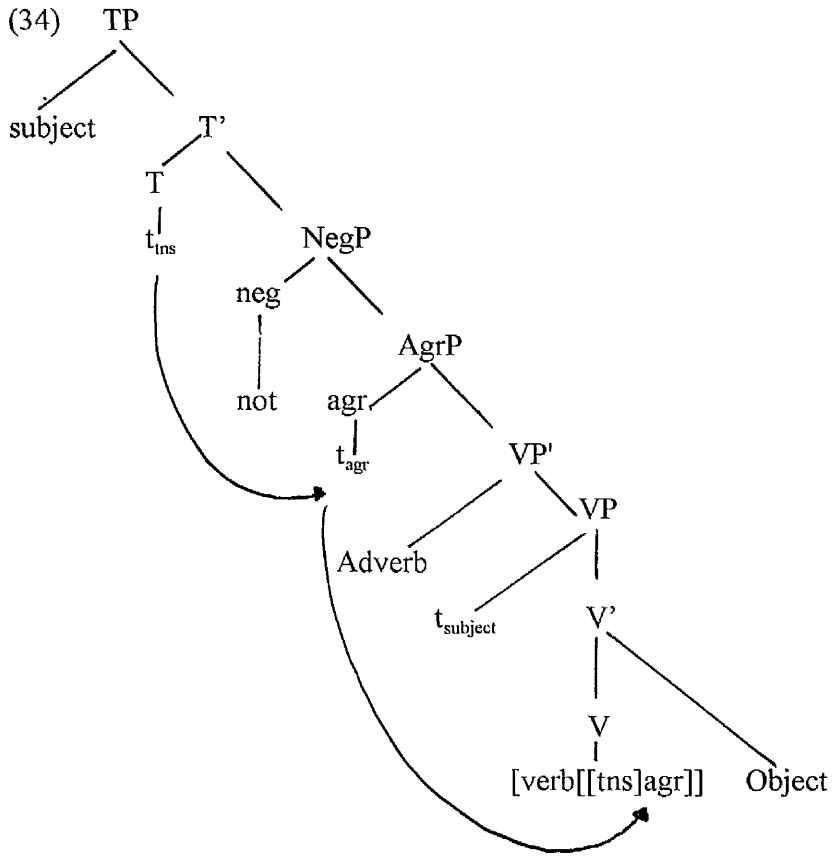
verbs placement in French and English. A verb raises with its theta role- if it has one to assign-. Since raising, however, involves adjunction of the verb to the Agr node forming the complex [$_{agr}$Agr[V]] which raises in turn to Tense giving [$_{T}$Tense[Agr[V]]] the verb theta role must percolate upwards through Agr in order to be accessible to the theta theory module. This is only possible when agreement is strong. If it is weak the verb theta role cannot filter through. We are now in a position to derive the difference in linear word order of French and English lexical verbs. In the case of French [fin] agreement is strong enough for a lexical verb to assign its role to its argument from a raised position, therefore the verb raises to satisfy quantificational theory.

(33)



English agreement is weak therefore a verb specified for a theta role cannot raise. There is however another permitted option in the syntax which involves affix lowering to V. In this case the complex formed is a verbal complex [$_{V}$V[affix]] and the verb can directly assign its role to its argument. The weak agreement specification therefore means that English tensed verbs which carry a theta role fall under the affix lowering analysis as represented below:

(34)



Copula *be/have*, auxilliaries and modals are not theta role assigners therefore Pollock predicts that they raise unhindered. However, if lexical verbs in English do not raise in [fin] clauses, then quantificational theory is violated. Pollock therefore postulates that null *do* insertion takes place under Agr and then raises to Tense in order to supply the variable required. Lastly, in Pollock, the *ne* as a clitic analysis remains grounded on the theoretical assumption that the complex realisation of negation in StF is reduced to the instantiation of the NegP where *pas* is base generated in the Spec position and *ne* is the head, as illustrated in (26)[4]. The linear order of sentence negation in StF *ne...pas* is therefore the reverse of the base generated order *pas ne*. To insure that the base generated order *pas...ne* becomes *ne...pas*, Pollock proposes that the head of the NegP *ne* cliticises to the tense head above the NegP

[4] I come back to the independent empirical evidence in support of the hypothesis that *ne* is a clitic in section 6.2.2.1.

through the application of move α.

To summarise so far, Pollock proposes that the elements *ne* and *pas* are the syntactic realisation of the functional projection NegP in StF. *Ne* with X^o properties is the head of the projection while *pas* with adverbial properties is base generated in the Specifier position. The linear order *ne...pas* is derived through the cliticisation of *ne* to a higher functional projection, typically the Tense projection. Finally, short and long verb movement captures the variations in linear order between the adverb, the verb and the constituent *pas*.

3.2. Extensions to Pollock's (1989) Proposal

Analyses subsequent to Pollock's have extended to languages other than StF and English the proposal that sentence negation reduces to the instantiation of the functional projection NegP. Ouhalla (1990) and Zanuttini (1990) argue that the position of the NegP within the IP structure and its overt realisation as either a specifier or a head are subject to parametric variations. Zanuttini (1997) departs from the NegP hypothesis as capturing the relationship between (two) discontinuous negative markers and proposes instead that each negative morphene is base generated under its own NegP. In effect, some Romance languages have multiple NegPs.

3.2.1 Ouhalla (1990)

Ouhalla (1990) argues that sentence negation can be expressed either (i) as a morphological category on the verb, (ii) as an auxilliary verb[5] or (iii) as an adverb like particle. He proposes

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[5]footnote 6 and 16 Ouhalla (1990) argues that *-n't* is affixal, however he proposes that it is still base generated under a NegP.:" *n't* can be assumed to be the affixal counterpart of *not*. To derive the sentence (ia,b) one could assume that NEG moves to Aux and forms with it a complex which subsequently moves to C via Tns and Agr. Notice, however that we should prevent *n't* from attaching to the verb, as its counterpart in Turkish does. (Violation of RM or *n't* cannot attach to verbs. Instead, it can only attach to Asp elements and modals)".

that (I) and (iii) instantiate a NegP. The parametric variations in the realisation of sentence negation (abstracting away from the type (ii) languages) must be attributed to whether the head or the specifier, (or even both in some cases), is overtly realised and to the position of the NegP relative to the Asp and Tense projections; the blocking effects of negation on either head or operator elements helping to motivate the choice of parameter for a given language. Ouhalla's (1990) analysis of sentence negation is mainly based on data from English and French, but examples from languages as different as Berber, Swedish and Turkish are included.

Ouhalla argues that the StF *ne...pas* sequence its two overt negative morphemes represents the hallmark of the expression of sentence negation in natural languages.

(6) a. je n'aime pas les fruits
I don't like fruit

Standard French sentence negation constitutes the best evidence in favour of the NegP. Nevertheless, Ouhalla argues that even in languages where there is no obvious morphological evidence for assuming a two parts negation as in (6) above, the NegP is a UG invariant.

In Languages where negation is realised as an XP category, Ouhalla proposes that the neg head is either deleted or realised as an empty category as motivated by endocentricity which is one of the central tenet of the X-bar schema, and requires that every maximal projection inherits its categorial properties from its head or vice versa every maximal category is the projection of the categorial feature of a terminal element. Further evidence of this is provided by the infinitival structures and root questions in French which require the overt realisation of the *ne* morpheme even in those dialects of French in which *ne* can be dropped:

(35) a. ??pas lire Franz Fanon (1990:191)
not to read Franz Fanon
b. ??a-t-elle pas lu Franz Fanon?
has she not read Franz Fanon

In the case of English sentence negation, Ouhalla, following Pollock (1989), analyses *not* as a head which triggers *do* insertion[6]. In other words, *do*-insertion in parallel with the absence of V movement across negation in Greek and Standard French results from the blocking effect of *not* which can be subsumed under Relativised Minimality:

(36) a.*que a-t-il ne pas mangé Jean?
b.*ti efage dhen O Yanis? (1990:221)
c.*what aten't John ?

If all languages are specified for a negative head marker then we would expect that they display similar head related relativised Minimality effects. In Swedish however the verb precedes the negative marker with adverbial properties:

(37) Jan kopte inte boken (1990:201)
Jan bought not books

In order to account for (37) Ouhalla proposes that X^0 minimality effects should be further relativized to affixal vs non affixal heads where an affixal head can (and in fact must) be adjoined to another head. Consequently, while maintaining the analysis of *do* insertion for English, we do not have to drop the NegP hypothesis for a language like Swedish: The Swedish abstract negative head, unlike English *not*, has affixal properties and raises along with the verb similarly to *ne* in Standard French (eg. 38a).

(38) a. que n' a-t-il pas mangé Jean?
b. ti dhen efage O Yanis? (1990:221)
c. what didn't John eat?

---

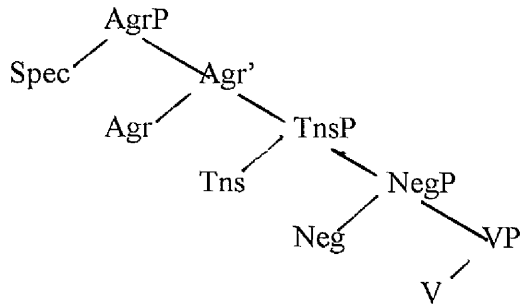
[6]Although he rejects lowering of categories or features.

Parametric variations in the position of the NegP within IP also contribute to explain the apparent lack of RM effects in the case of the English modals and auxiliaries. If the projection which hosts modals and auxiliaries is base generated above the NegP in English, then the contrast between English lexical verbs, which involve the *do* support strategy, and modals and auxiliaries which do not, follows. Further support for this hypothesis is provided by the linear ordering of the negative morphemes with respect to the TnsP in Berber and Turkish:

(39) a. John elmal-I sermedi-0 (Turkish)
John apples-ACC like-NEG-past(TNS)-3s(AGR)
b. ur-ad-y-xdel Mohand dudsha (Berber)
NEGwill(TNS)-3ms(AGR)-arrive Mohand tomorrow
(1990:189)

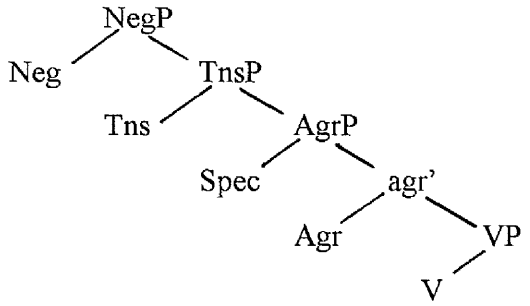
(39) shows that whereas the negative head precedes the tense in Berber, it follows it in Turkish. This is represented in the tree diagrams below[7]:

(40) Turkish



[7] (14a)[my (40)] abstracts away from the fact that Turkish is a head final language (1990:193).

(41) (Berber)



(1990:193)

Ouhalla also argues that English sentence negation has a syntactic negative operator. However, in English, where sentence negation is realised as a head morpheme, an empty category in the specifier position of the NegP cannot be motivated by endocentricity. The motivation for having a covert operator in the specifier of the NegP must therefore come from somewhere else. Ouhalla argues that Relativized Minimality effects provide the evidence needed. He shows, with reference to English, that movement of not only head categories but also A' categories across sentence negation is ruled out despite the fact that sentence negation is realised by the single overt negative morpheme *not*.

(42) a. it is for this reason that I believed that John was fired (1990:217)

b. it is for this reason that I don't believe that John was fired

(42b) shows that due to A-relativised minimality a wide scope construal of the adverbial operator is unavailable in the presence of negation; therefore English has an empty operator in the Spec of the NegP. Similarly, in Modern Greek, where the negative marker is a head the clefted adverb *for this reason* in (43b) cannot be associated with the event of "firing", but only that of "thinking".

(43) a. aftos ine o logos pu nomizi oYanis oti a polithike a Petros (1990:222)
is for this reason that thinks the John that was fired the Peter
b. aftos ine o logos pu dhen nomizi oYanis oti a polithike a Petros
is for this reason that not thinks the John that was fired the Peter

We can conclude therefore that Modern Greek like English has an abstract operator in the Spec of the NegP which gives rise to A' related relativised minimality effects and blocks the wide scope interpretation of the adverbial phrase in (43b).
Finally, Ouhalla shows that the NegP is needed in order to explain adverb placement in French where adverbs in French do not always occur immediatly adjacent to the past participle verb, but, instead, can occupy what seems to constitute a higher adjunction site:

(44) a. Marie n'a certainement pas perdu la tête (1990:226)
Marie has certainly not lost her mind
b. Jean n'a évidemment pas lu Franz Fanon
Jean has obviouly not read Franz Fanon

In (44), the NegP therefore provides the relevant adjunction site for the adverb immediately adjacent to *pas*.

3.2.2. Zanuttini (1990)

Zanuttini (1990) retains Pollock's NegP analysis to account for the Standard French data, but proposes to distinguish two Neg projections; NegP1 and NegP2. NegP1 selects TP and NegP2 selects VP. The structural realisation of sentence negation can therefore cross linguistically vary along both the Spec-Head parameter and the NegP1 or NegP2 parameter. Zanuttini argues that the "four ways distinction" accounts for all the variations which exist in the realisation of sentence negation in Romance languages.

Italian

(45) Gianni non ha telefonato a sua madre

Gianni has not phoned his mother

Spanish

(46) Juan no ha llamado a su madre

Juan has not phoned his mother

French

(47) il ne marche pas

he does not walk

Piedmontese

(48) a tem nen la mort

cl fears not death

he does not fear death

For instance, Italian *non* and Spanish *no* are the overt realisation of the head of the NegP1. On the other hand, StF is a NegP2 language where *pas* and *ne* are respectively, the specifier and the head of the NegP2, *ne* cliticising to a higher projection. Finally, Piedmontese in (48) is a NegP2 language whose specifier is *nen*. One of the consequence of the NegP1/NegP2 hypothesis is that the clitic hypothesis is no longer needed to explain why *non/no* in Italian and Spanish precedes the verb. The linear placement of *no/non* is not the derived order resulting from a process of cliticisation of the head of the NegP to a higher projection as in the case of StF *ne*, but reflects the position of the NegP1. This is a welcome result given that the clitic analysis of *non/no* appears unmotivated. *Non/no* do not behave like Romance pronominal clitics. Firstly, *no/non* can receive stress (49). Secondly, *no/non* can, in some instances, also be separated from the verb (50). Thirdly, they always precede the verb, be it finite or non finite (51).

(49) preferirei NON farlo

I'd rather NOT do it

(50) a. *avendo Gianni lo finito in tempo...
having Gianni it finished on time...
Gianni having finished it on time...
b. ?avendo Gianni non finito in tempo...
having Gianni neg finished on time...
Gianni not having finished on time..

(51) a. e meglio non parlarle
is better neg talk her
it's better not to talk to her
b. e meglio che non li parli
is better that neg her talk
it's better I don't talk to her

The NegP1/NegP2 hypothesis also accounts for the interaction of negation (or the lack of it) with true imperatives. Romance languages vary as to whether the imperative form can be negated or not. So, in (52), Spanish has to resort to the subjunctive in order to express a negative imperative. On the other hand, in StF a true imperative can be negated.

Spanish

(52) a. cierra la puerta
shut the door
b. *no cierra la puerta
do not shut the door
c. no cierres la puerta
do not shut the door

French

(53) a. ferme la porte
shut the door
b. ne ferme pas la porte

do not shut the door

Taking true imperatives as not instantiating the functional projection TP, then the asymmetry between (52b) and (53b) follows from the NegP1/ NegP2 distinction. Only the NegP2 below the TP can negate a true imperative since the NegP1must select a TP.

Finally, some scope facts in Italian can only be accounted for by positing that Italian sentence negation is of the NegP1 type.

(54) non lo prendo adesso e te lo riporto tra tre giorni (Italian)
I'm not going to take it now and return it to you in three days (1990:59)

NegP1 is above TP therefore its overt instantiation *non* in (54) is able to negate both finite conjuncts as required.

3.2.3. Zanuttini (1997)

Building on Zanuttini (1990), Zanuttini (1997) proposes a more precise characterisation of both pre verbal negative markers, with reference to pronominal clitics ordering, and post verbal markers, with reference to Cinque's (1996) analysis on the relative ordering of adverbs within the IP structure. In her analysis, however, the NegP is no longer seen as relating a discontinuous sequence of negative markers. Instead, each negative marker can potentially have its own discrete Neg functional projection.

Zanuttini (1997) distinguishes two types of negative pre-verbal markers elements as examplified in (55).

(55) a. Maria non lavora qui
Maria doesn't work here
b. Jean n'aime pas la viande
Jean doesn't like meat

The distinction between *ne* and *non* above is firstly motivated by their individual contribution to negation. Italian *non* expresses negation whereas *ne* does not. Secondly their distribution is different. In the relevant dialects, the negative markers which occur alone not only precede all complement clitics, but also the agreement subject clitics (57a) where we distinguish agreement clitics which must be repeated in conjunction structures (56b), from vocalic clitics which cannot(56a):

(56) a. a magno pomi e bevo cafe (Basso Polesano) (1997: 31)
b. la magna pomi e la beve cafe (Basso Polesano) (1997: 30)

(57) a. no la vien (Basso Polesano) (1997: 31)
she's not coming
b. a no vegno
I am not coming

On the other hand, the pre negative markers which cannot express negation on their own follow the subject agreement clitics:

(58) a nui u n'interessa nent (Carcare) (1997:34)
to us s.cl neg interest neg
it doesn't interest us

Turning to the interrogative contexts, Zanuttini notes that the strong negative markers block the use of interrogative clitics as opposed to weak negative markers which have no such blocking effects:

(59) a. te magni (Paduan) (1997: 40)
you eat
b. cosa magni-to
what do you eat

(60) a. *no ve-to via? (Paduan) (1997:42)

b. no te ve via?

aren't you going away?

(61) a. tu manges French

you eat

b. que manges-tu?

what do you eat

c. ne pars-tu pas?

aren't you going away?

Zanuttini proposes to explain the blocking effect of the strong negative markers in terms of shortest move (an updated version of RM) as follows. If interrogative contexts are specified for a Q feature which attracts the nearest compatible head, then the strong negative markers must be able check the strong feature of Q. On the other hand, in the case of the weak negative markers, the verb is attracted. The verb must therefore qualify somehow as the closest head (1997:56). This analysis also provides evidence for the claim that "while strong negative markers head their own FPs higher than Infl, weak negative markers are adjoined to an independently existing functional head" (1997:25). In particular, weak negative markers may be taken to be part of the verbal inflection clitic cluster which raises along with the verb to check the strong Q feature. This hypothesis, as Zanuttini points out, is in line with the content description of weak negative markers. If weak negative markers do not express negation on their own, then we should not expect them to qualify as negative heads.

Zanuttini also considers whether the absence of neg raising to satisfy Q might be due to an intervening feature which attracts neg. For instance, in Paduan, a strong negative marker is compatible with interrogative clitics in highly restricted contexts which are linked to focussing effects, as is highlighted by the case of wh-exclamatives questions[8] below:

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[8] In Paduan, real negative wh-questions are expressed indirectly by relying on a cleft construction:

(I) cossa zhe che nol ga fato? (1997:47)

(62) a. cosa ghe ga-lo dito? Paduan (1997:49)

what neg scl him say

what did he tell him?

b. cossa no ga-lo dito! Paduan (1997:53)

what neg him says-scl

what things he is telling him!

*what didn't he tell him?

She argues that Paduan which is specified for a strong negative marker provides evidence for an intervening focus head which attracts *no*. Whether (61c) falls under the analysis of the Paduan data in (62) does not necessarily follow the contrast already noted between the simple interrogatives (60a) and (61c) in Paduan and StF.

Turning to post negative verbal markers, Zanuttini proposes to integrate them within Cinque's (1997) adverbs hierarchy where each adverb occupies the specifier of a functional projection headed by an abstract head with semantic content. Cinque's (1997) proposal results from his study of adverb placement in Italian in which he "concludes that the relative ordering of adverbs in any given portion of the clause is rigidly fixed" (Zanuttini 1997:61). For instance he proposes that in Italian and StF the adverb linear ordering is encoded as follows:

(63) a. mica gia piu sempre completamente tutto bene VP

b. pas deja plus toujours completement tout bien VP

Neg already no more always completely all well VP

Moreover, the distribution of each adverb remains constant relative to other adverbs whether they precede or follow the past participle verb

---

what neg him says-scl
what is it he hasn't done?

(64)

a. Da allora non hanno do solito mica piu sempre completamente *rimesso* tutto bene in ordine

b. Da allora non hanno do solito mica piu sempre *rimesso* completamente tutto bene in ordine

c. Da allora non hanno do solito mica piu *rimesso* sempre completamente tutto bene in ordine

d. Da allora non hanno do solito mica *rimesso* piu sempre completamente tutto bene in ordine

e. Da allora non hanno do solito *rimesso* mica piu sempre completamente tutto bene in ordine

since then they haven't usually any longer always put everything in order

(1997:63).

(65)

a. *Da allora non hanno do solito mica piu sempre completamente tutto *rimesso* bene in ordine

b. *Da allora non hanno do solito mica piu sempre completamente tutto bene *rimesso* in ordine

since then they haven't usually any longer always put everything in order

Cinque argues that free adjunction to higher functional projections (eg. VP, TP) cannot capture the well-formed derivations in (64). If we assume for instance that stacking of the adverbs under VP takes place in (64a), then we have to insure that when the adverbs are adjoined to a different functional projection (ie for instance TP for (64b)), the adverb hierarchy is maintained. On the other hand, if each adverb occupies the specifier of a functional projection placed in a fixed hierarchy while the past participle raises from its VP base position to adjoin to a higher FP position, (64) follows.

Exploiting the adverb hierarchy given above, Zanuttini shows that all post verbal negative markers do not occupy a unique position, but instead there are three post verbal positions for negation identified as follows within the adverb hierarchy:

(66)	*presup.*		*Non presup.*		*Non presup.*
Italian	mica	gia		piu sempre	
French	pas	deja	pas?	plus toujours	
Piedmontese	pa	gia	nen	pi nen sempre	
Valdotain	pa	dza	pa	pa mai toujou	
Milanese	minga	gemo		pu semper	no
	not	already	not	no more always	not
				(1997: 143)	

Zanuttini also shows that distinct positions within the structure lead in some cases to interpretive differences. For instance, presuppositional and non presuppositional negative readings corresponding to a morphologically marked difference in languages like Piedmontese (ie.*pa/nen*) are distinguished in terms of their positions in StF and Valdotain (St. and rd column in (66)). Post verbal negative elements must therefore occupy the specifier of a NegP headed by an abstract category which has semantic features.

To sum up, despite stressing the differences between strong vs weak preverbal negative markers, Zanuttini does not entirely rule out having a separate NegP for the weak negative markers as she argues that a choice between these alternatives cannot be made on the basis of empirical evidence alone. Consequently, in languages where two negative markers co occur under distinct positions within the tree structure, sentence negation may be expressed by two Neg projections. Similarly, by adopting Cinque's (1997) adverb hierarchy to account for post verbal negative markers, a negative derivation is specified for at least both the presuppositional and non presuppositional NegPs. In other words, according to Zanuttini (1997) sentence negation is specified for multiple NegPs[9].

I propose to turn now to Hirschbuhler's and Labelle's (1992) alternative base generation

[9] I come back to Zanuttini's (1997) careful examination of a large array of data and some of her suggestions at the end of this chapter.

proposal which principally is concerned with word order in negative infinitival in StF.

3.3. Alternative Evidence for the NegP: Hirschbuhler and Labelle (1992)

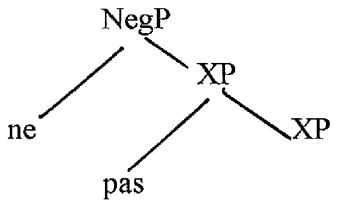
Hirschbuhler and Labelle (1992) propose that the NegP hypothesis accounts for the otherwise unexplained word order of the negative constituents both in the infinitival structures and the construction specific *pour ne pas que*. They disagree however with Pollock (1989) that *pas* and *ne* are base generated under the NegP. Hirschbuhler and Labelle argue that if we assume that the negative constituents must be base generated under the NegP and given the X^0/ X^{max} distinction between *ne* and *pas*, then the only way to retrieve the S-structure order *ne...pas* is to posit that *ne* has clitic properties which allow it to raise to a higher projection. Nevertheless, as they point out there exists at least two instances in which there is no potential landing site available for *ne* to cliticise to: the construction specific *pour ne pas que* in (67) and the case of infinitival with a double negation reading in (68).

(67) pour ne pas que qu'elle souffre
for her not to suffer

(68) a. il serait criminel de ne pas ne pas partir
it would be criminal to avoid not leaving
b. je t'ordonne de ne plus jamais ne rien faire
I am asking you to never do nothing again

Hirschbuhler and Labelle (1992) therefore propose to consider an alternative syntactic analysis of the structure of sentence negation in StF where instead of postulating a *pas* base generated in the Spec of the NegP giving the underlying order *pas...ne* as in Pollock's (1989) account, *ne...pas* is the base generated order. *Pas* adjoins to a lower Maximal projection governed by the head *ne* of the NegP. The underlying structural representation they suggest is given in (69).

(69)



In other words, the NegP is no longer a place where a Spec-Head relation must obtain rather it constitutes some sort of "parking space" for the head element *ne* in structures where other independent projections do not seem otherwise motivated.

Let us look into details at the problems that a Pollock-style analysis encounters in order to account for (67) and (68). Starting with (67), if the deep structure order is *pas...ne* then we must insure that it is reversed in the course of the derivation. This means that the derived order is crucially dependent on *ne* raising and cliticising onto a higher FP. Hirschbuhler and Labelle consider two options: either NegP is base generated above CP, or it is base generated below CP. In the first case and by hypothesis the head of the NegP *ne* needs to cliticise to a functional projection above the CP. However, there is none potentially available so the derived order *ne...pas* remains unexplained. The second option is that *ne* and *pas* are base generated in IP. Under this hypothesis, (70) becomes an intermediate step in the derivation.

(70) pour qu'elle ne souffre pas
for her not to suffer

Pas and *ne* can either move as a single constituent or separately across the CP. Under the single constituent approach, the adjunction or incorporation of *pas* would have to take place in the second step of the derivation given in (70). Consider however (71). In (71), *pas* is sitting in a position above IP whereas *ne* is cliticised to the main verb of the lower clause. (71) is therefore best accounted for if *ne* and *pas* move separately.

(71) pour pas qu'elle ne descende de son lit
for her not to get out of bed

However, the problem of the landing site for *ne* remains in this case also.
Next, Hirschbuhler and Labelle consider the infinitival structures in (68), reproduced below:

(68) a. il serait criminel de ne pas ne pas partir
it would be criminal to avoid not leaving
b. je t'ordonne de ne plus jamais ne rien faire
I am asking you to never do nothing again

The question on how the surface order *ne...pas* can be derived arises once more. Pollock's analysis where *pas* is base generated in the Spec of the NegP predicts that *ne* cliticises to a higher FP. In (68) there are two base generated *ne* elements within the same clause. The cliticisation of the two *ne* constituents to higher FPs is however unlikely since the presence of those FPs is not otherwise motivated.
Consider now (72). There are two *pas* elements, but only one *ne*.

(72) a. Pierre n'a pas vu qui que ce soit
Pierre has not seen anyone
b. non Pierre n'a pas pas vu qui que ce soit, il m'a vu moi [10]
no, Pierre has not (not) seen anyone, he has seen ME

It has been observed that in tensed clauses there is never more than one *ne* element although there can be more than one NC term per clause. Hirschbuhler and Labelle propose that in (72), each instance of *pas* is licensed by a separate *ne* element as attested by the infinitival

[10] The licensing of the NPI *quique ce soit* is rather puzzling. In fact, many would disagree that (72b) is grammatical.

cases in (68); the difference between the two structures being that in tensed clauses only one of the *ne* element is phonetically realised. This hypothesis is supported by the scope facts of (73).

(73) Malgre cela, si on m'en offre[de bonne] je ne la prendrais pas pas

According to Hirschbuhler and Labelle, the interpretation of the sentence in (73) requires that the second instance of *pas* modifies material which it does not c-command. *Pas* in (73) cannot have a constituent negation reading. Positing that each of the two *pas* is related to a higher *ne* then explains why the second *pas* can take sentence scope. In other words, it is infinitival constructions and not tense clauses which are significant in determining the syntax of the double negation readings.

To sum up, the hypothesis that *ne* and *pas* are base generated in that order as suggested by Hirschbuhler and Labelle does not require positing any additional structure other than the NegP itself and therefore it appears to be superior to a Pollock's-style analysis. Hirschbuhler and Labelle also argue that the motivation behind the analysis of *ne* as a clitic is mainly theory internal, namely, once we assume that *pas* is in the Spec of the NegP with *ne* as its head, then the overt syntax *ne...pas* order must be somehow retrieved. We may ask however whether *ne* is indeed a true head in the sense of Hirschbuhler and Labelle and not a clitic as it is generally assumed. I propose to come back to this issue in section 6. It remains neverthelesss that, if *ne* is a neg head without clitic properties and *pas* is simply an A' adjoined constituent, then the relationship between the two morphemes of negation *ne* and *pas* that seems intuitively appropriate, is lost. The general assumption that *ne* and *pas* are intrinsically linked together can however be maintained if we assume the Neg Criterion as Hirschbuhler and Labelle suggest. The negative term *pas* raises covertly to the specifier position of the NegP to satisfy the Neg Criterion.

In the next section, I propose to introduce the Neg Criterion hypothesis where the NegP is the landing site needed for the LF movement of the negative constituents.

4. The Neg Criterion: Zanuttini (1990), Haegeman and Zanuttini (1992) and Haegeman (1995)

Zanuttini (1990), Haegeman and Zanuttini (1992) and Haegeman (1995) propose that negative constituents must satisfy the Neg Criterion, defined below, at some point of the derivation:

(74) Neg Criterion:
A neg-operator must be in a Spec-Head configuration with an X [neg]
An X [neg] must be in a Spec-Head configuration with a neg-operator

The Neg Criterion can be thought as an extension of the Wh-Criterion. Under the Wh-Criterion, a wh-phrase is specified with a wh feature and must enter a Spec-Head relation with the functional head C specified for the same wh-feature. I propose to present the evidence in support of the Neg Criterion[11] in 4.1. Although the Neg Criterion is a concrete proposal with specific implications, which I argue against in chapter 2, there are also some intuitions behind the adoption of such a principle which I propose to review in 4.2.

4.1. The Neg Criterion: Some Motivations

The evidence in favour of the Neg criterion is twofold. Firstly, wh-elements and negative constituents share the semantic property of being affective elements. Secondly, negative constituents are subject to locality constraints similar to that of wh-constituents. I review Kayne's (1984) and Moritz and Valois (1994) evidence which support Haegeman's and Zanuttini's Neg Criterion hypothesis, although Moritz and Valois propose that the A'-dependencies established by the negative constituents can involve additional pied piping

[11]Subsumed under the affect-criterion by Haegeman (1995) (where Affect is a more abstract category that includes wh-elements). In chapter 2, I argue against this claim.

regulated by the controlled percolation of the neg features to the appropriate maximal projection.

4.1.1. Affective Elements

It is well known that wh-elements as in (75a) and negative elements as in (75b) can license NPIs; where NPIs can informally be defined as lexical items whose distribution is sensitive to the presence of a constituent with special semantic properties subsumed under the notion of affectivity[12].

(75) a. When did you see anyone?
b. I did not see anyone
c. *I saw anyone

Further evidence in favour of the claim that both wh and negative elements appear to share the semantic property of being affective elements is given below. In (76) and (77) the (a) examples allow two readings. On the first reading the wh-adjunct behaves as if it had originated in the matrix, and on the other, the lower clause (the trace position in my example). On the other hand, the (b) examples show that when a wh-element or a negative element intervenes only the reading where the wh-adjunct originates in the matrix clause is available (as indicated by the * in (76b) and (77b)).

(76) a. when did you say [they will fire John t] ?
b. *when did you wonder[whether they will fire John t]?

(77) a. when did you say that I believed [that John was fired t] ?
b. *when did you say that I didn't believe [that John was fired t] ?

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[12]Cf. Ladusaw (1983) or chapter 2 for a formalisation of this semantic property.

Assuming following Szabolsci and Zwarts (1990) that affective operators block extraction of adjuncts then both *whether* and *not* are affective elements since *when* in the (b) examples cannot originate in the trace position.

Finally, (78) shows that sentence negation, like direct wh-questions, can involve Aux to Comp inversion, as illustrated below, with English:

(78) a. not often does Jack attend parties

b. *not often Jack attends parties

4.1.2. Locality Effects: Kayne (1984)

Kayne shows that negative elements in StF are subject to the ECP in a way similar to wh-constituents. Firstly, he introduces the following facts:

(79) a. j'ai exigé qu'ils n' arrête personne

I have required that they did not arrest anyone

b. je n'ai exigé qu'ils arrêtent personne

I have not required that they arrest anyone

When *ne* is in the lower clause, only a narrow scope reading of *personne* is available (79a). On the other hand, when *ne* is in the matrix clause, the object NC term receives a wide scope interpretation indicating that *personne* establishes a dependency with *ne* (79b). Consider now the case where the NC term in the lower clause is in subject position.

(80) a. j'ai exigé que personne ne soit arrêté

I have not required that anyone be arrested

b. *je n'ai exigé que personne soit arrêté

I have not required that anyone be arrested

(80) shows that the subject *personne* can only be construed with a clause mate *ne*; the sentence being ill-formed otherwise (80b). The object/subject asymmetry in (79b) and (80b) can be put into parallel with the constraints on overt wh-movement:

(81) a. Who did you say that you called t?

b. *Who did you say that t called Mary?

The asymmetry between subject and object wh-extraction displayed in (81) is explained in terms of the ECP. The ECP is a principle that regulates dependencies derived through movement. In particular, it states that traces of movement must be properly governed. Several versions of the ECP have been proposed, but I work here with Rizzi's (1990:32) conjunctive definition of the ECP:

(82) Empty Category Principle

a. a non-pronominal category must be properly[13] head governed by a governor non-distinct from [+V]

b. antecedent-governed or theta governed

c. no barrier intervenes

Barrier for Government (Cinque 1990)

Every MaxP that is not L-marked (theta marked by a lexical head) by a [+V] category is a barrier for government

If we assume that the wide scope construal of the negative constituent in (80b) is derived through movement of *personne* to the higher clause, then the object/subject asymmetry found

[13]"Properly" is understood here as "in the canonical direction of government" . The non-distinctness clause is an addition to Rizzi's definition as suggested by Cinque (1990) (cf. also Rizzi 1990:108) to account for the nominal islands cases. For instance, in (i), the absence of a governor non distinct from [+V] rules out the extraction of the wh-phrase out of the NP:
(i) *for whom did you see many letters?

between (79b) and (80b) can be reduced to an ECP violation. The ECP requires that a trace should be properly head and theta/antecedent governed. In (79b) the object trace of *personne* is both properly head governed and theta governed given its position in the structure as complement of the verb. However, the subject trace in (80b), assuming that *que* is an inert governor, is not properly head governed. The verb and I are [+V] governors, but they do not canonically govern the subject trace. The ill-formedness of (80b) therefore follows from an ECP violation. We can conclude that negative dependencies are regulated by the same constraints as those applying to overt wh-movement.

4.1.3. Locality Effects: Moritz and Valois (1994)

Moritz and Valois (1994) introduce further data on the locality constraints at work in the expression of sentence negation in StF. In (83) *personne*, inside a sentential subject, cannot be construed with *ne* similarly to the wh-cases of left branch extraction which are bad.

(83) a. *engager personne n'est permis
hiring no one is permitted
b. *qui engager est-il permis?
who to hire is permitted?

One way to account for (83) is to argue following Cinque (1990) that the CP is a barrier for extraction since the matrix I fails to canonically govern it. The canonical condition on government must also be at stake in (84); ruling out NC terms inside a DP subject:

(84) a. *le frère de personne n'a mangé
nobody's brother ate
b. *de qui le frère t a-t-il mangé?
whose brother has eaten?

NC terms inside an infinitival adjunct (or DP[14]) cannot take sentential scope either (85&86).

(85) a. *Pierre ne souhaite que Mark parte avant d'engager personne
Pierre doesn't wish that Mark leaves before hiring anyone
b. *Qui Pierre souhaite-t-il que Mark parte avant d'engager t ?
Who does Pierre wish that Mark leaves before hiring t?

(86) a. *Fred ne désire rester en ville pour aider personne
Fred doesn't want to stay in town to help anybody
b. *qui Fred désire-t-il rester en ville pour aider ?
Who does Fred doesn't want to stay in town to help ?

Here, presumably the ungoverned prepositional phrase constitutes a barrier to the extraction of the NC term. Moritz and Valois are nevertheless aware, as independently argued by Cinque (1990) for clitic left dislocated structures, that sensitivity to strong islands is not a reliable diagnostic of covert movement. Cinque argues that the clitic-analysed as a resumptive pronoun- and the dislocated phrase in (87a) form a Chain although clitic left dislocated structures are also subject to the strong islands constraint (80b):

(87) a. [in quella citta]$_i$ non *ci*$_i$ sono mai stato
in that town I never went
b. *se [ricco]$_i$ cresi che esser*lo*$_i$ stato non gli giovi to sbali
if you think that to be rich has not helped him you are wrong

Moritz and Valois also note that NC dependencies are unlike the unbounded wh-

[14] NC terms cannot be extracted out of DP internal adjuncts either:
(i) *tu n'as vu le portrait par personne (1994:697)
you did not see the portrait by no one
*par qui as tu vu le portrait ?
by whom did you see the portrait?

dependencies. *Personne* from inside a complement infinitival but not a tensed clause[15] can be construed with *ne*:

(88) *il ne pense que Pierre a vu personne (1994:676)
He doesn't think that Pierre has seen anyone
Fred ne désire aider personne
Fred does not wish to help anyone (1994:674)

NC terms does not display connectedness effects either. Kayne (1984) and others have shown that an ECP (wh-island) violation can be rescued by adding another wh-phrase.

(89) a. I'd like to know who hid it where (Kayne 1984)
b. *I'd like to know where who hid it
c. ?I'd like to know where who hid what

Similar connectedness effects do not hold in the case of *personne/rien*. We have seen that the subject internal *personne/rien* cannot be construed with matrix *ne* since it violates the ECP in (88b). We would therefore expect that the sentence becomes considerably better if another NC term is added in the matrix clause as in (90b) below:

Connectedness effects[16]

(90) a. *n'appeler personne donnera rien
calling no one will lead to anything
b. ??il ne fait rien pour aider personne
he does not do anything to help anyone

[15]With the possible exception of subjunctive cases discussed by Kayne (1989).

[16]I will come back to connectedness effects in chapter 3. It seems to me that connectedness effects do arise in the case of StF NC dependencies. In fact this is already indicated in (90b) which receives a ?? marking according to Moritz and Valois (1994).

Finally, *personne/rien* can be construed with *ne* across non-sentential islands such as adjuncts, PP complements although prepositions in French are governors distinct from [+V] (Kayne 1984)[17] unlike wh-phrases that undergo overt movement:

VP adjunct:

(91) a. Jean n'est arrivé avant personne
Jean hasn't arrived before anyone

b. *Qui est-il arrivé avant t?
who did he arrive before t?

c. il est arrivé avant qui?
who did he arrive before t?

PP complements

(92) a. Jules n'a parlé à personne
Jules hasn't spoken to anyone

b. *qui a-t-il parlé à t?
whom did he speak to?

c. il a parlé à qui?
whom did he speak to?

The data in (91) and (92) shows that NC dependencies behave similarly to the wh in sit[18] cases. This, however, does not necessarily prevent the Neg Criterion from applying. Moritz and Valois propose that it is a constituent larger than the NC term, which is subject to

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[17]"In French, P and V do not govern in the same way; but in English they do (that is in English P can govern structurally as well)." (Kayne 1984:116).

[18]Additionally there is the thematic hierarchy condition (1994:696):

(i) a. *Claude n'a vu sa (agent) photo de personne (theme)
Claude has not seen his photo of any anyone

b. *Claude a vu sa photo (agent) de qui (theme)
of whom did Claude$_i$ saw his$_i$ photo?

constraints equivalent to those of overt wh-movement. The covert pied-piping analysis of neg constituents, according to Moritz and Valois, is motivated by the *de* licensing data and the blocking effect of *pas*.

Consider first (93c&d) which are well-formed despite the fact that the NC term *personne* does not c-command the NPI *de* in the overt syntax:

(93) a. Jean ne mange pas de pain (1994:677)
Jean does not eat any bread

b. personne ne mange de pain
no one eats any bread

c. Lucie n'a donné de livres à personne
Lucie has not given any books to anybody

d. Lucie ne donne de receptions pour personne
Lucie does not throw parties for anybody

Moritz and Valois argue that for (93c/d) to be well-formed *personne* must occupy a higher c-commanding position at LF. Two landing sites for the NC term may be considered: IP, following the standard QR account, or the NegP. If the NC term adjoins to IP, then (94) below is predicted to be grammatical, contrary to judgements. On the other hand, if *personne* raises to the specifier of the NegP which does not c-command the subject position, then (94) can be correctly ruled out.

(94) *d'articles n'ont été donnés à personne
articles were given to nobody

Covert movement to the specifier of the NegP also explains the ungrammaticality of (95). *Personne* cannot move to the NegP to satisfy the Neg Criterion as it is already occupied by the element *pas*.

(95) ??Jean n'a pas vu personne

Jean has not seen no one

The parallelisms between negative and wh-dependencies discussed above are, nevertheless, partial. There exist in fact many counter arguments against a covert movement analysis of NC categories as driven by the Neg Criterion. Leaving this topic aside for the time being (but cf. chapter 2), I prpose to discuss instead what essentially motivates a principle like the Neg Criterion.

4.2. The Neg Criterion and the NegP Hypothesis

The Neg Criterion hypothesis makes similar structural assumptions than the NegP hypothesis discussed above. Sentence negation always involves a head and an XP constituent. In fact, in the case of Standard French negation, Haegeman and Zanuttini assume that *ne* is the head of the NegP and *pas* base generated in its specifier as in Pollock (1989).

Haegeman's and Zanuttini's Neg Criterion hypothesis however constitutes an important shift in emphasis. With the Neg Criterion, we move away from the need to have the components of sentence negation base generated under the NegP to the need of insuring that "a checking configuration"[19] under this projection obtains.

The Neg Criterion also generalises the Spec-Head configuration which holds between two base generated constituents as in Pollock (1989), to various constituents which may occupy base positions that are not in an obvious way related to the instantiation of the NegP. In particular, in StF, not only the base generated constituent *pas*, but the XP constituent *personne/rien* can enter into a Spec-Head relation under the NegP, the assumption being that the latter raises at some point of the derivation. In this sense the Neg Criterion could be

[19] For some differences cf. Chapter 2.

subsumed under the more general case of the feature checking configuration[20] (Chomsky 1995) which itself can be thought as a formal way of licensing a relationship between two non contiguous elements. It is therefore precisely because it captures the relationship which intuitively seems to hold between a discontinuous sequence of morphemes that the Neg Criterion hypothesis remains a valid claim.

5. Against the NegP

So far, I have reviewed the arguments in favour of the NegP in Standard French. I propose to consider below two analyses which argue against having a separate projection NegP. Ernst (1990) proposes that sentence negation in English is realised as an XP category either in the specifier of (in accordance with P-licensing requirements of the head) or adjoined to a MaxP. Laka (1990) argues that sentence negation merely instantiates a neg feature realised on a more abstract projection called Sigma.

5.1. Ernst (1990): Sentence Negation as a Specifier

Ernst (1990) proposes to drop the assumption that all functional elements (eg C, Infl and by extension Neg) are heading their own FPs in order to reanalyse the English sentential negation marker *not* as an adverb occupying the specifier of non lexical verbal projections. Ernst's analysis of English *not* is based on the view that generalising the NegP hypothesis to English sentence negation leads to the violation of important principles of the government and binding framework. More specifically, assuming the NegP in English means that both the X-bar theoretic distinction between heads and specifiers and the principle of Relativized Minimality become more or less vacuous. I review these claims below.

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[20]This is not quite true however since interpretable features of the target do not attract in Chomsky's (1995) version of the checking theory. Concretely, it means that there is no covert movement of either feature or category in the case of wh-movement and by extention, we would assume, negative elements.

Do-support in the case of negated lexical verb is taken to constitute overwhelming evidence for analysing *not* as a head which blocks verb raising and triggers *do* insertion.

(96) a. *Paul left not

b. Paul did not leave

Ernst remarks, however, that auxiliary verbs, which following Pollock (1989) are base generated under a lower AuxV projection and clearly subject to the head movement constraint (subsumed under the more general RM principle) ruling out (97a), can move across *not* without triggering *do* support in violation of Relativized Minimality (97b):

(97) a.*have he could left

b. Paul has not left

Pollock (1989) notes the contrast in well-formedness between (97a) and (97b) and proposes to account for it that the negative head *not* is inert for government. Inertness of *not* for government however cannot account for (98) where the VP has been preposed:

(98) I asked Dan to move the car but move the car he did not (1990:114)

If *not* is inert for government, then (98), where the trace resulting from VP movement is ungoverned and gives rise to an ECP violation (cf. The conjunctive definition of the ECP given by Rizzi 1990), should be ill-formed. This is contrary to judgements. Moreover, Ernst argues that *not* as the head of a NegP also makes the wrong predictions if we consider constituent negation. (99) shows that the head of the NegP *not* appears to select any type of constituents:

(99) a. not unapproachable figure

b. not always has she seasoned the meat

(100) *Sam not unapproachable

Consequently, the ill formed (100) below cannot be ruled out on the basis of selection by *not*. We do not expect either that Agr above the NegP selects the VP since selectional restrictions are local relations. The contrast in well-formedness between (101a) and (101b) leads to the same conclusion:

(101) Ken said he could have heard the news, but George (1990:118)

a. said that he could not (have)

b. *said that he could have not

c. said he could have not heard the news

Deletion is an operation that affects only constituents. The ungrammatical (101b) where the constituent negative marker *not* must be deleted indicates that *not* must be a constituent of the VP.

Returning to the RM effects, Pollock proposes that sentential *not* could be reanalysed as occupying the specifier of the NegP. Ernst however points out that, under this hypothesis, the important distinction made by X-bar theory between specifiers and heads disappears. Under X-bar theory (referred to as a bottom up theory) maximal projections result from the projection of the head features; XP categories, on the other hand, are licensed by some independent principles called P-(hrase) licensing conditions[21]. *Not* as the specifier of a FP headed by an abstract category however retains the properties of a head category: It is obligatory and appears to be "the semantic centre of a projection". The abstract neg head hypothesis cannot account either for the absence of RM effects(eg. *Do*-support) in the case of non lexical verbs.

[21] This includes the following: "selection of complement, selection of specifiers, predication, case assignment, and licensing of adjectival and adverbial modifiers (it may be necessary to expand this list) and []potentially [are subject to] further structural conditions (eg. adjacency, government and direction) in relation to the head".

Sentential *not* as a specifier licensed by non lexical verbs including *do*, predicts, on the other hand, that there should be no RM effects and provides an explanation for the *do* support structure.

(102) a. John is not leaving
b. John didn't leave
c. *John not left

The hypothesis that the head of the VP -the auxiliary and dummy *do*- selects its specifier predicts that (102a) and (102b) are well formed. Furthermore, because both the auxiliary and dummy *do* are head categories, they are free to move across the XP *not*. On the other hand, the ill-formedness of (102c) can be simply derived from assuming that lexical verbs do not select *not* as their specifier.

Turning to constituent negation, Ernst argues that *not* as a constituent negative marker is not subject to the selectional restriction which applies to specifiers. We have seen that *not* adjoins to any type of maximal projection (99). Moreover, it occurs (more or less) freely similarly to adjuncts as in (103):

(103) (Occasionally) Ruth (occasionally) will (occasionally) go dancing therefore

He proposes thus that constituent *not* is VP adjoined similarly to other adverbs. The analysis of constituent *not*, in fact, extends to infinitival *not*. This is motivated by the negative infinitivals structures of the (104)-type where either (104a) or (104b) obtains:

(104) a. he tried not to be so loud
b. he tried to not be so loud

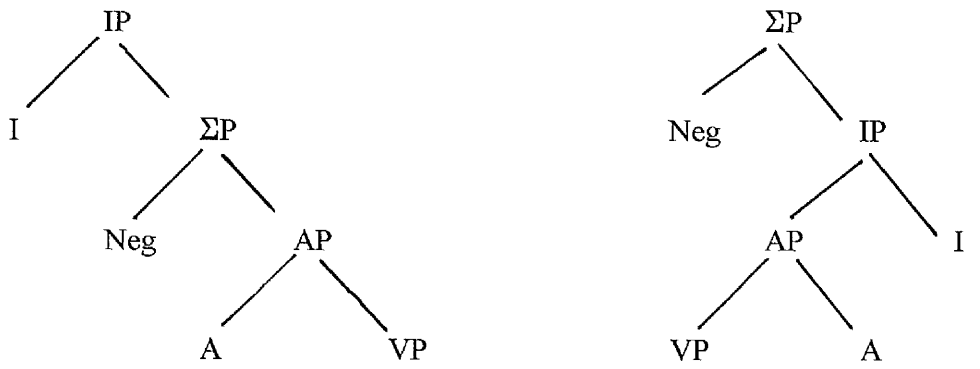
To sum up, Ernst's (1990) analysis of sentential *not* as the specifier of a non lexical VP has several important consequences for the analysis of sentence negation in general and StF, in

particular. Sentential negation no longer needs to be viewed as the instantiation of a NegP, when there is no obvious morphological constituent which can act as a negative head. In other words, some languages may not instantiate a neg category. This is essentially what Haegeman and Zanuttini (1992) argue when they take the presence vs absence of a NegP to reflect the DN vs NC language divide. However, a stronger claim would be to argue that sentential negation is cross linguistically realised as a neg feature. This is essentially what Laka (1990) proposes to do in her analysis of Basque and English sentence negation.

5.2. Laka (1990): The Neg Feature

Laka (1990) argues that sentence negation characterized by negation taking scope over the IP and everything that it c-commands is realised under a functional projection of a more abstract nature than the NegP. She calls this projection the Sigma projection with reference to the speech-act notions of affirmation and denial. She proposes that unlike the NegP, the category Sigma(Σ) can host [+neg]/[+aff] features (1990:74). In other words, sentence negation is a neg feature rather than a separate functional category

(105) A. English b. Basque



Laka's ΣP analysis stems from the comparison of the structural realisation of sentence negation and emphatic affirmation in English and Basque. Firstly, emphatic affirmation and sentence negation trigger the same syntactic mechanisms, namely *do* insertion in English and

auxiliary inversion in Basque. On the other hand, both dummy *do* and auxiliary inversion cannot occur in declarative sentences. This is illustrated in (106).

(106)	a. Mary left	a. Marie joan da Marie left has
	b. Mary didn't leave	b. Marie ez da joan Marie not has left
	c. Marie DID leave	c. Marie DA joan Marie has left
	d. *Marie did leave	d. *Marie da joan Marie has left

Secondly, Laka shows that emphatic affirmation and sentence negation do not co occur in the same clause.

(107) a. I didn't, as Bill had thought, go the store[22]
b.*I DID not, as Bill had thought, go the store

In (107), the English examples are construed so that a constituent negation interpretation leads to ill-formedness. The starred (197b) therefore shows that a reading where negation takes sentence scope is not available when *do* is stressed. Similar conclusions can be drawn from the Basque data in (108) and (109). If we assume, as Laka does, that a sentence negation interpretation takes a subject quantifier in its scope, then, as indicated by the English translation, (108) is an instance of sentence negation.

(108) $[_{NegP}$ denak$_i$ $[_{Neg}$ ez dira$_j$ $[_{IP}$ t$_i$ etorri t$_j$]]]
all not have come

[22] Some speakers disagree with the data.

not all came

Moreover, the auxiliary *dira* has undergone Aux to Comp inversion in (108). The presence of Aux inversion in (108) must therefore be triggered by sentence negation. Turning to (109), Aux inversion of *dira* has also taken place, this time triggered by emphatic affirmation:

(109) $[_{NegP}$ denak$_j$ dira$_i$ $[_{IP}$ t$_j$ [ez etorri]t$_i$]]

all have not come

all did not come (ie. "all of them where such that they didn't come")

There is however another difference between (108) and (109). In (109), the subject universal quantifier *denak* is outside the scope of negation. The reading of (109) thus indicates that we are not dealing with sentential negation despite the presence of auxiliary inversion. Emphatic affirmation and sentence negation are therefore in complementary distribution in both Basque and English.

By retaining the NegP analysis which only accounts for sentence negation, then Laka's two important generalisations about the English and Basque data are missed. The ΣP hypothesis, on the other hand, can capture them. Sentence negation and emphatic affirmation are in complementary distribution because *not/ez* and the affirmative morpheme are both a realisation of a Σ head. The ΣP hypothesis can also explain the presence of the same syntactic effects in the context of emphatic affirmation and negation (ie. Aux inversion and *do* insertion). Aux inversion and *do* insertion result from the instantiation of the Sigma projection. In other words, sentence negation is not realised as a separate neg category which projects, but as a neg feature on a more abstract functional category called sigma.

6. The Structure of StF Sentence Negation

In the last section, I have reviewed analyses which have taken the view that the NegP is not needed to give a cross linguistic characterisation of the syntax of sentence negation. Instead,

it is possible to envisage sentence negation as the syntactic realisation of a neg feature. This is not to say that sentence negation is never realised as an independent NegP, but rather that the burden of explanation has to lie with the analysis which assumes a neg^0 category that projects. This is mainly because in the MP nothing bars a single projection from hosting more than one feature[23].

In this section, I investigate the hypothesis that sentence negation is realised as a neg feature in the context of StF sentence negation. More precisely, I propose that sentence negation in StF is realised as a strong neg feature on a functional projection which I tentatively identify with the agreement projection[24]. *Pas* is adjoined to a lower Maximal projection. The adverb *pas* however is unable to check the neg feature under AgrP, due to a general ban on the occurrence of XP categories between the subject and the verb in AgrP. As a result, the expletive clitic *ne* is inserted under AgrP.

Let us first take a closer look at the properties of the finite IP structure of Standard French within which sentence negation is realised.

6.1. Nash and Rouveret (1997) : The IP Structure of StF

The linear ordering between the verb and the adverb (ie. the verb-adverb in French vs adverb-verb sequence in English) is derived, on standard assumptions, from the absence of (overt) verb movement in English and its presence in French (cf. Pollock 1989):

(110) a. Maria carefully closed the windows

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[23]Cf. Rizzi who generates a +Q feature under T^0 to derive inversion.

[24] Or TP. The status of Agf^0 as a separate functional category is unclear (This is discussed at length in Benmamoun (1993) who argues against Agr). However, there some instances in which AgrP enables us to retrieve the linear ordering of categories in the overt syntax. One option worth considering is to assume as in Rouveret and Nash (1997) that, besides interpretive categories (eg. Tns^0), we have proxy categories which are created as a result of feature movement driven by the condition that no more than one feature is checked under a single projection.

*Maria soigneusement ferme les fenêtres

b. *Maria closed carefully the windows

Maria ferme soigneusement les fenêtres

This analysis, however, turns out to be too simplistic when we take into consideration other Romance languages. In Portuguese, for instance, the adverb can appear on either side of the finite verb (the examples are from Rouveret and Nash 1997):

(111) a. Rui (*vivamente) agarrou vivamente o braco do irmão

Rui seized brusquely the arm of the brother

b. Maria cuidadosamente fechou as janelas

Maria carefully closed the windows

The (111a) sentence shows that the verb overtly raises giving the standard sequence verb-adverb that we find in French. However, in Portuguese, adverbs can also intervene between the subject and the verb as illustrated in (111b). If we assume overt verb raising to account for (111a), then we no longer have the option of claiming that the absence of V raising accounts for (111b). We are forced to conclude that the adverb in (111b) is adjoined to a higher functional projection (ie.TP in (111a)); provided, of course, that selectional restrictions on the choice of the adverb are met. The hypothesis that the sequence subject-adverb-verb in Portuguese in (111a) results from clitic left dislocation also has to be rejected. An adverb can intervene between the "quantified (hence not topicalised) subject" and the verb :

(112) todos provavelmente errarão

all will probably fail (1997:6)

Portuguese shows therefore that the sequence adverb-verb does not necessarily imply that there is no overt V movement, and, that another explanation must lie behind the fact that in

French, the subject-verb sequence can only be interrupted by clitic elements as shown below:

(113) a. Jean les lui donnera
Jean will give them to him
b. Jean (*probablement) échoura (probablement)
Jean probably will fail

Working with a modified version of the MP, Nash and Rouveret (1997) assume that the IP has two invariant FPs; the tense projection and the aspect projection. The variations in the linear order of constituents above the VP are themselves accounted for by proxy categories and a mechanism of feature fission created by the need of a target feature to be checked. The difference between the French and Portuguese IP structures under these assumptions can be expressed as follows. In French, only clitic elements can intervene between the subject and the verb, therefore in French a Spec-Head relation must hold between the subject and the verb. If we assume that TP is a possible adjunction site for the adverb in both Portuguese and French, then the Portuguese finite verb raises to T whereas the French finite verb raises higher, possibly to what corresponds to the old AgrP (represented here by a Proxy projection resulting from feature fission) to enter into a Spec-Head relation with the subject inserted[25] under that node in both languages. Structurally, the distinction can be represented as follows:

(114) Portuguese $[_{\text{proxy P}}$ subject$[_{\text{proxy}}$ D $[_{\text{TP}}$ adverb$[_{\text{Tense}}$ t_d verb$]]]]$

(115) French $[_{\text{proxy P}}$ subject$[_{\text{proxy}}$ D+verb $[_{\text{TP}}$ adverb$[_{\text{Tense}}$ t_{d+V} $]]]]$

I will not try to motivate how the word order of both French and Portuguese is derived as it relies on the theory internal motivations provided by the twin notions of Proxy categories and feature fission. Let's assume that it is derived in this fashion, and look instead at how sentence negation is structurally realised within this articulated finite IP structure.

[25]Or raised from its VP internal position.

6.2. Analysis of StF Sentence Negation

Sentence negation in StF is represented by a discontinuous sequence where *ne* precedes the finite verb and *pas* follows it.

(116) l'homme *ne* mange *pas* un sandwich
the man doesn't eat a sandwich

I propose in order to account for (116) that *ne* is a clitic to an existing functional projection specified for a neg feature, and *pas*, an adverb, is adjoined to a lower MaxP. In the remainder of this section, I provide evidence that this analysis of sentence negation is not only compatible with the StF finite IP structure, but is preferable to one where *ne* is seen as moving from a lower NegP identified by *pas*' placement in the overt syntax. I also show that this analysis of StF sentence negation provides morpho-syntactic motivations as to why *pas* a constituent negative marker cannot express sentence negation on its own. Its status as adverb must bar it from doing so[26].

6.2.1 *Pas* as Adjoined to a MaxP

Hirschbuhler and Labelle (1992) suggest that *pas* can be analysed as adjoined to a maximal projection. Let us consider the arguments for such an analysis before asking whether the NegP is indeed needed and, in fact, can be motivated within the tensed IP structure of StF. I propose that *pas* is adjoined to a MaxP alongside other adverbs. We have seen in Zanuttini's (1997) analysis of post negative markers that the Standard French negative marker *pas* although occupying a relatively high position within the adverb hierarchy, patterns similarly to not only other post verbal negative markers, but also other adverbs. *Pas*, using adverb placement as an indication, was shown to be part of the adverbs hierarchy

[26] Rouveret (pc).

identified by Cinque (1997), and not to be distinguished from them.

Zanuttini's analysis however raises the more general issue of the proper treatment of adverbs. Should adverbs be analysed as specifiers of individual functional projections or adjoined to independent functional categories? Cinque (1997) argues that if we posit different sites of adjunction (for instance TP or VP) for the adverbs, then the adverbs fixed linear ordering exemplified in (65) cannot be accounted for. However, this is done at a cost. In Cinque's (1997) as many as 30 fixed adverb projections, the heads of which have no semantic content may need to be posited. Moreover, if we adopt Cinque's adverb hierarchy hypothesis, then we cannot retain the new Minimalist assumptions (Chomsky 1995 chapter 4 section 10). In particular, Chomsky (1995) argues that a constraint should be placed on functional projections (FPs) in order to limit their number. The constraint he introduces requires that only the FPs relevant to the interpretive component qualify, namely D, T, C and Neg. Following this line of inquiry, the agreement projections, argued to be not likewise motivated, have been superseded by the availability of multiple Specs positions and light v projections[27]. Analysing each adverb of the hierarchy as the specifier of an independent FP therefore reintroduces a problem similar to the one which led to the reformulation of the agreement projections into the multiple Specs and the VP shells hypothesis. Moreover, under the adverb hierarchy hypothesis adverb placement is uniquely fixed contrary to what is shown in (117):

(117) a. il n'est vraiment pas sympatique
He is really not friendly
b. il n'est pas vraiment sympatique
he is not really friendly

We may argue following Zanuttini (1997) that the two positions of *pas* are linked to a difference in interpretation providing evidence for Cinque's hypothesis that the adverb

[27] See Benmamoun (1993) on AgrP for further discussion.

occupies the specifier of an abstract head with semantic content, but it is far from clear that the difference between (117a) and (117b) is not simply due to inverse scope relations between *pas* and the adverb *vraiment*[28]. Furthermore, it means that multiple NegPs co-occur in the structure although there clearly is only one instance of negation per clause. I propose therefore to adopt the standard hypothesis that adverbs are adjoined to existing functional projections.

We have also seen that the NegP hypothesis is able to explain the strong relationship that exists between the StF two negative markers *ne* and *pas*. In fact, the NegP hypothesis was generalised to languages where the overt negative marker is a head category on the basis of the A' related Relativized Minimality effects in the context of negation (Ouhalla 1990). However, Szabolcsi and Zwarts (1990) propose that the blocking effects of negation do not have to result from the syntactic position/category of the intervening operator, but instead could be explained purely in terms of the semantics of negation. In particular, only non monotonic or downward monotonic operators block the movement of non-D-linked wh-elements (seen as sets which impose a partial ordering on their elements). Hence in our example below *combien* cannot raise across negation.

(118) a. combien ont-ils tous lus de livres?
how many have they (cl)all read of books

b. *combien personne n'a-t-il pas lu de livres?
how many no one has-he(cl) read of book

Szabolcsi's and Zwarts' (1990) analysis is also able to differentiate between (118a) and (118b) where the negative marker which is downward monotonic, but not the universal

[28] In fact, since the adverb hierarchy is fixed for all the Romance languages, Zanuttini's (1997) argument for a presuppositional *pas* depends on the grammaticalness of the ill-formed (i):

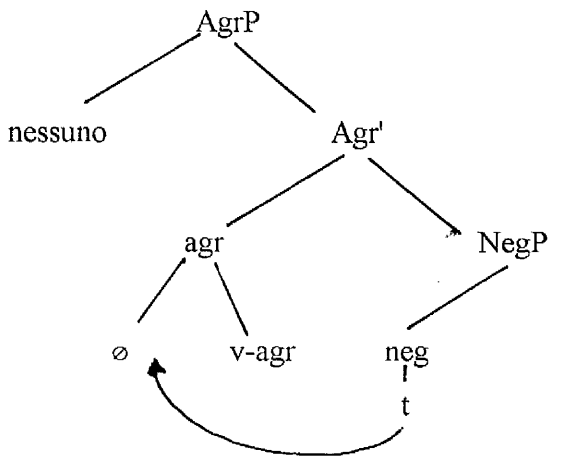
(i) *il n'a déja pas voulu ce jour-là (1997:83)
already that day he didn't want too

quantifier (Q-adjoined to IP in the covert component), blocks adjunct extraction although, both are potential intervening antecedents under RM.

Despite the fact that, there appears to be no need to refer to an empty syntactic operator, the case of a language like StF however remains. Dropping the NegP hypothesis means that the strong relationship that exists between *ne* and *pas* is no longer captured. It is however possible to envisage, as suggested by Hirschbuhler and Labelle (1992), that *pas* establishes a relationship with the *ne* element through the application of the Neg Criterion (Zanuttini 1990). The basic intuition underlying Pollock's (1989) analysis in which *ne* and *pas* enter a Spec-Head relationship can therefore be maintained, albeit at a different "level" of the derivation, by assuming the Neg Criterion hypothesis.

The Neg Criterion analysis developed by Zanuttini (1990) and Zanuttini and Haegeman (1992) in fact also assumes a NegP. The NegP in their analysis is the locus of the Spec-Head relation which holds between two negative elements as driven by the Neg Criterion. On closer inspection, this is not quite true. Haegeman (1995) proposes that the Neg Criterion can be satisfied under a projection other than the NegP. In particular, in Italian, the subject negative element *nessuno* which occupies the specifier position enters a Spec-Head relation with the negative head raised from the NegP under the agreement projection (AgrP). This is represented below:

(119)



In order to insure that the Neg Criterion also holds under AgrP, Haegeman argues, following

an earlier proposal by Rizzi and Roberts (1989) for the French subject-verb inversion in interrogatives, that the Spec of AgrP becomes a mixed A/A' position as the result of the adjunction of the empty clitic neg^0 to agr^0. Under this assumption both the case and neg features of the negative subject can now be checked under the same projection. The NegP, in this sense, is now only motivated by the presence of a neg^0 category. But even the existence of a neg^0 category has been put into question in Rizzi's (1990) analysis of English aux-inversion.

Rizzi (1990) considering the case of English auxiliary inversion triggered by the neg feature also argues that the negative phrase in (78) may overtly move not to the NegP, but to the specifier of the CP. I reproduce (78) below:

(120) not often does Jack attend parties

Additionally, the phrase *not often* in (120) does not enter into a Spec-Head relation with a neg^0 category, but the verbal element *does* specified for a neg feature. A separate functional category neg^0 is therefore not required in order to express sentence negation. It can be argued, in a similar fashion, that nothing in the formulation of the Neg Criterion requires the X^{max} to be in a Spec-Head relation with a negative head category. Any head element specified for a neg feature qualifies. If two elements can enter into a Spec-Head relation under a projection other than the NegP and they merely have to share a neg feature, then there appears to be no real need for the independent projection NegP as motivated by the Neg Criterion[29]. Taken in conjunction, these arguments seem to indicate that there is scope for a

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[29]Acquaviva (1997) argues that if the NC element moves to the specifier of the CP then the lack of superiority effects in (ib), which contrasts with the ill-formed (ia) where a wh-phrase is prevented to raise across another wh-element, is not accounted for. A separate NegP as the landing site of a moved NC term, on the other hand, would account for the fact that negative elements do not seem to interfere with wh-movement in (ib).

(i) a. *what did who say?
b. why did no one come?

It seems however that there is much more at stake: We have seen that non D-linked wh-phrases are affected by an intervening negation. Moreover, the contrast between (ia) and (ib)

reformulation of the Neg Criterion which does not involve the NegP.

To sum up thus far, although I do not dismiss outright Cinque's (1996) analysis of adverbs as Specs of independent functional projections, I assume, subject to further reasearch, that adverbs, and *pas* in particular, are adjoined to independent maximal projections.

6.2.2. *Ne* as a Weak Neg Marker

Following Zanuttini's (1997) analysis of weak negative markers, I propose to review now the evidence showing that *ne* does not head its own functional projection.

6.2.2.1. *Ne* as a Clitic Head

Hirschbuhler and Labelle (1992) claim that the status of *ne* as a clitic is only motivated by the need to reverse the base order *pas ne* in the NegP to the derived order *ne pas*. Nevertheless there also exists empirical evidence which I consider below that *ne* is a clitic element.

Firstly, *ne* like pronominal clitics cannot be stressed. Secondly, we have seen that in the StF IP structure only pronominal clitic elements and *ne* intervene between the subject and the finite verb. We have proposed that this because the subject and the verb must stand in a Spec-Head configuration which cannot be interrupted by non terminal categories. Given this assumption, then *ne* must also be a clitic-head. Thirdly, *ne*'s position which is relative to whether the tense morphology is realised on a lexical verb or on an auxiliary verb also indicates that *ne* is a clitic associating with the tense morphology, similarly to pronominal clitics:

(121) a. je l'ai mangé

---

follows if we adopt an analysis in terms of closest feature where the +Q feature of the wh-phrase *why* in (ib), but not *what* in (ia) is the closest feature +Q feature.

I have eaten it

b. je le mange

I eat it

(122) a. je n'ai pas mangé

I have not eaten

b. je ne mange pas

I don't eat

In her cross linguistic study of Romance sentence negation discussed in section 3.2.3, Zanuttini (1997) distinguishes between strong and weak negative markers. In particular, *no* in Italian is a strong marker whereas *ne* in French is a weak marker. The Cairese preverbal negative marker in (123) is also analysed as a weak negative marker alongside *ne*.

(123) u men le devi nent dumandele (Zanuttini 25:1997)

scl me-neg them must neg to ask them

you should not ask me for them

In Cairese, the preverbal negative marker is placed between the two clitic object pronouns showing that the Cairese weak negative marker can only be analysed as part of the verbal clitic cluster. This provides further evidence that *ne*, as a weak neg marker, is also a clitic. The analysis of *ne* as a clitic element however does not entirely rule out the hypothesis that *ne* is the head of an independent functional projection. Weak negative markers, as opposed to strong negative markers, could be analysed as "adjoining to independently existing functional heads either an abstract functional head (eg tense, mood or neg itself) or an overt head (the finite verb or the complement clitic)" (Zanuttini 1997:23), but it is also possible to extend the clitic projection hypothesis as proposed in Sportiche (1992) and analyse weak negative markers as heading a separate Neg projection.

The first option nevertheless presents the advantage of being in keeping with the fact that

whereas the strong negative markers occupy a fixed position called NegP1, weak negative markers can follow (as in the case of Cairese) or precede (as in Cairese and French) some of the complement clitics; indicating that there is no such thing as a fixed "NegP2", as I label it here. Additionally, Zanuttini (1997) argues that we do not want to say that *ne* and other weak negative markers "that do not express negation by themselves are neg^0 elements". More precisely, in the case of StF sentence negation, an analysis which takes *ne* to be a neg^0 element fails to capture *ne*'s contribution to interpretation. Taking *ne* to be the head of a NegP means that it must be specified for categorial neg features which project to the MaxP. Consequently, the neg^0 *ne* must be a negative element affecting the truth value of the sentence. However, the data of StF shows that it is not the case, and, instead, *ne* is best analysed as an expletive[30]. *Ne*, as an expletive, therefore cannot project any neg categorial feature and cannot be the head of the NegP.

Although, the *ne* as an expletive hypothesis does not remove all the plausibility for having a NegP, there is evidence that the NegP cannot be realised in a position where *ne* is overtly realised, since this position corresponds precisely to the position in which a NegP cannot be posited. More precisely, if the NegP is situated between the subject and the verb, we no longer have an explanation as to why the subject and the verb sequence can only be interrupted by clitic elements. Additionally under the same hypothesis, if the NegP in Cairese is inside the verbal clitic cluster, then XP categories becomes part of the process of morphological affixation, although affixation is held to only apply to terminal categories.

It is possible however to assumethat the NegP of which *ne* is the head occupies a lower position within the IP, as in Pollock (1989) and subsequent literature. *Ne* then moves to a higher position in the overt syntax as motivated by its clitic properties or some other filter.

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[30]Briefly, when *ne* is licensed to appear alone, *ne* never expresses negation. Moreover, negation can be expressed without *ne*, as in Spoken French, or in Standard French when it is used as a non sentential constituent modifier. Cf. Chapter 3 for an extensive discussion of the status of *ne* as an expletive.

6.2.2.2. Neg and Tense

I propose to consider first the empirical evidence that in a variety of languages the overt realisation of sentence negation is quite high, and that, when affixal, it is related to Tense. Taking the case of Italian *non* and Spanish *no*, the negative markers in both languages always precede the inflected verb or auxiliary which is said to raise to T in the overt syntax. The strong negative markers *no/non* therefore are in a c-commanding position over the VP.

(124) Pedro no fui al restaurante
Pedro didn't go to the restaurant

Turning to affixal (sentential) negation, it always seems to be related to tense or vice versa the tense affix to negation. For instance, English "*-n't* is [analysed as] the realisation of an inflectional feature on the finite auxiliary as proposed by Zwicky and Pullum 1983 (cf. Ouhalla 1990). *N't* is thus an alternate realisation of the negative feature selected by +tense: an auxiliary with this feature either takes *not* as its Spec or is inflected with *n't*" (Ernst 1990:128). The Standard Arabic data also shows the strong relationship between tense and negation although in this case tense is the affix:

(125) a. t-tubllaab-u dahab-uu (Benmamoun 1991:18)
the students-Nom go-3MP PAST
b. t-tubllaabu lam ya-dhab-uu
The students not-PAST IMP-go-Agr

This example also illustrates the fact that in languages, where tense is realised as an affix, it has a closer relationship with the negative morphology than the verbal morphology (125b). Alternatively, tense and neg occur together on the verbal element as illustrated by the Berber

example:

(126) b. ad-y-xdel Mohand dudsha (Berber)
NEG-will(TNS)-3ms(AGR)-arrive Mohand tomorrow

The case of StF is similar. We have already shown that in finite sentences, *ne*'s position is relative to the tense morphology. The special relationship of clitic *ne* to tense is even more clearly put in evidence in the case of infinitivals. In infinitivals, *ne*, unlike pronominal clitics which always are clitics to a root morpheme with categorial head properties (typically a verbal element), can be separated from the verbal head by *pas* as shown below:

(127) ne pas le lui donner
not to give it to him

In order to account for the word order of sentence negation in StF infinitival structures of the (127)-type, Belletti (1990) proposes that *ne* independently raises to the higher functional projection tense. To put it differently, in infinitivals, *ne* is not so much a clitic on a root morpheme (ie. the verb), but on an abstract feature (T^0 in Belletti 1990).

6.2.2.3. Against *Ne* as Head of a Lower NegP

There are two ways we might want to capture the intuitions behind the empirical data discussed above. We may either want to assume in line with Pollock (1989) that the NegP is base generated below the tense node, or as argued above propose that the *ne* element is merged under Agr^0 specified for a strong neg feature. A movement analysis, as in the first case, however implies a motivation for it. I propose to consider some options below.
One option is to say that *ne* is a clitic to the verbal head, and, as such, raises along with it. However, in infinitival structures *ne* was shown to move independently from the verbal constituent to tense. Independent movement of *ne* to tense however means that new answers

must be found as to what drives *ne*'s movement to tense.

There has been attempts to link the locus of the realisation of sentence negation to the semantic notion of existential closure. Acquaviva (1997) proposes that sentence negation, expressed as a negated existential operator, has to be related to agr^0 since existential closure occurs under that node: "[We should] relate the generalised neg^0 raising[31] to inflection with the general requirement that [] a formative capable of turning an existential into a negative existential must reach agr^0" (1997:79). However, if, as required, Acquaviva's filter is a condition on the overt syntax not all languages obey this so-called semantic universal. Germanic languages, where sentence neg is analysed as adjoined to the VP, are a case in point. Alternatively, the overt condition on the expression of sentence negation can be expressed as a syntactic constraint. Zanuttini (1990) proposes the following constraint on the assignment of sentential scope to negation:

(128) Negation can take sentential scope only if at S-structure it is in a position from which it c-commands both the tense phrase and the agreement phrase (1991:153)[32] .

However, if, following the MP, the only levels of representation are those which the interface with the interpretative components A-P and C-I, then (128) must be somehow restated as follows:

(128') In the overt syntax a strong target neg feature attracts a lexical item also specified for a neg feature

Consequently, the overt Movement of a negative morpheme in the NegP is now triggered by a strong target neg feature on Agr^0. A contradiction of sorts since we have only one instance

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[31] A movement analysis of neg^0 remains unlikely since it would be hard to retrieve, for instance, the Turkish neg-tns vs Berber tns-neg linear ordering.

[32]This is somehow inaccurate since sentence negation in Romance languages never precedes the subject in the Spec of AgrP.

of negation per clause.

6.2.3. The *Ne...Pas* Sequence

Evidence was presented which strongly suggests that *ne* is a clitic element which does not head its own discrete projection, but is instead adjoined to an existing Agr[33] projection. I am going to show now that this analysis of standard French sentence negation explains why *pas* which can express constituent negation in (129a) is unable to license sentence negation in (129b):

(129) a. Il a vécu des aventures pas tristes
he has lived an eventful life
b. *il connait pas la fin de l'histoire
he doesn't know the end of the story

We have seen that the finite IP structure of StF does not allow adverbs to precede the finite verb in StF. Further, I have made the hypothesis that sentence negation in StF, or more generally Romance languages is realised by a strong neg feature on Agr^0. This hypothesis is

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[33]Note that tense under standard assumptions will not do since *pas* or the negative adverbs like *jamais* and *plus* can also be adjoined to the TP. The problem is in fact more accute in the case of *pas* which always precedes the infinitival or past participial verb despite the option of short verb movement to a position above the VP illustrated in (27):

(26) a. ne pas boire
not to drink
b.*ne boire pas
not to drink

(27) a. souvent boire (adapted from Pollock 1989)
to often drink
b. boire souvent
to often drink

supported by (130) in Italian where the morpheme of negation *non* precedes the verb.

(130) Gianni non ha parlato a la sua madre
Gianni hasn't spoken to his mother

The explanation for (129b) can now be derivedfrom these two assumptions as follows. *Pas,* unlike Italian *no* in (130), but similarly to other adverbial elements (eg. *plus*), is too low to license sentence negation (ie. check the neg feature on Agr^0 under my assumptions), therefore in StF the negative clitic *ne* must be merged onto Agr^0 to derive (131b):

(131) a. Gianni ne parle plus à sa mere
Gianni doesn't speak anymore to his mother
b. Gianni ne parle pas à sa mere
Gianni doesn't speak to his mother
c. Gianni *(non) ha parlato piu a la sua madre
Gianni doesn't speak anymore to his mother

This hypothesis is supported by the Italian (131c) where the adverbial negative must combine with the negative marker *non* for the derivation to be well-formed.
To sum up, I have proposed that the strong neg feature is under the Agr^0 in StF. However the adverbial negative *pas*, presumably because adverbs occur in the lower IP periphery cannot move to Agr^0. It follows that an XP category like the adverb *pas* cannot license sentence negation in StF (ie. meet the overt syntax checking requirement).

7. Conclusion

I have proposed that, within the StF finite IP structure introduced above, Agr^0, under standard accounts, (or Tense under Nash's and Rouveret's (1997) assumptions) is the locus of sentence negation realised as a strong neg feature. In other words, it corresponds to *ne*'s

overt placement, not *pas*. I have further argued that *pas* is adjoined to a MaxP following an earlier proposal by Hirschbuhler and Labelle (1992).

That the neg feature c-commanding the VP is in Agr^0 also explains why the structural requirement on the expression of sentence negation in StF is not satisfied by *pas* alone. Its status as an adverb prevents it from doing so.

We have also discussed an analysis where *ne* raises from a lower NegP position. We have shown however that movement (or insertion) of *ne* can only be morphologically motivated. In the MP, this is stated as follows:

(128') In the overt syntax a strong target neg feature attracts a lexical item also specified for a neg feature.

As a result, the IP structure display two potential loci for the instantiation of a sentence negation: Agr^0 and the head of the NegP. It seems unlikely however that there are two neg target feature in the tree but one instance of clausal negation. Similarly a NegP or $Cl_{neg}P$ is unlikely to occupy a position corresponding to the overt placement of *ne* as no XP category can intervene between the subject and the finite verb which, in StF, stands in a Spec-Head configuration.

Chapter 2

Negation in Natural Languages: Interpretive Strategies and their Formalisations

0. Introduction

In chapter 1, we have seen that expressing sentence negation in natural languages often involves a discontinuous sequence of negative morphemes. For instance, Standard French sentence negation is expressed by the two parts negation *ne...pas*. A possible explanation for having *ne...pas* was given by Pollock (1989) and subsequent literature. Sentence negation is syntactically realised as an abstract NegP of which *ne* is the head and *pas* the specifier. In section 6, however I have proposed that StF sentence negation is not realised as a NegP, but a neg feature on an existing functional projection; *ne* cliticising to it and *pas* being adjoined to a lower Maximal projection. The strong relationship between *ne* and *pas* in StF must therefore be derived by another mechanism.

In this chapter, I investigate precisely how the non contiguous relationship between two negative morphemes can be expressed without relying on a base generated account. Our stating point is the Neg Criterion previously introduced in chapter 1. Moreover, if we dispense with the NegP, we need to explain why sentence negation should be overtly realised as a structural complex. This issue will be discussed in section 5. Finally, a structural analysis of sentence negation is to a certain extent dependent on the interpretation of the negative structures involved, therefore a semantic dimension will be added to the discussion.

The chapter is organised as follows. I present Standard English negation and its properties from a semantic perspective. In English, two morphologically negative elements lead to a double negation (DN) reading. Another way to express a negative meaning in English is to rely on negative polarity items (NPIs) in combination with a morphologically negative element acording to licensing conditions on NPIs which have been formalised by Ladusaw (1983). Some languages also rely on a specific interpretive strategy in order to process negation called Negative Concord (NC). I summarise the evidence for saying that NC terms licensing is an interpretive strategy distinct from negative polarity items (NPIs) licensing (Ladusaw 1992;1996). In section 2, I show following Ladusaw (1992) and Deprez (1995) that the *ne...pas/personne/rien* structure of Standard French cannot be subsumed under a

NPI account for at least two reasons. Firstly, the licensing conditions of *pas/personne/rien* are on the main distinct from those of the NPIs *qui que ce soit/quoique ce soit.* Secondly, although we find that the overall interpretation of *ne...personne/rien/pas* is equivalent to that of the NPI account their individual interpretations do not match the interpretation given to respectively the NPI licensor and the NPI licensee.

Section 3 investigates some proposed formalisations of NC dependencies. NC analyses are in the main neg feature analyses (Haegeman 1995, Acquaviva 1995, Ladusaw 1992 based on Laka's 1990 analysis of n-words in Spanish 3.1) except for Deprez's (1995) analysis where NC terms are in fact 0-numerals with a strong reading; requiring QR in the covert syntax. The neg feature analyses however differ from each other in several respects. Some analyses are semantically motivated, others are not. Some analyses are non movement based and others movement based. Most of the distinctions can traced back to the type of lexical semantics given to NC terms (ie. Are NC terms variables or negative terms?).

Section 4 provides a synthesis of the discussion and suggests that a morphologically driven neg feature analysis explains the constraints at work: the left branch condition, the ECP effects, the connectedness effects, the wh-islands, and, subject to further research, on the nature of covert feature movement, the tense islands. In other words, feature movement explains the syntax of NC dependencies, and not their semantics.

Finally, in section 5, I explore how the variations on the overt realisation of sentence negation across Romance languages have been accounted for in Haegeman (1995) and Ladusaw (1992). I argue that it is best to view the basic representation of sentence negation as a simplex (eg. Italian *non*) as in Ladusaw (1992; 1996) rather than as a complex (eg. StF *ne...pas*) as in Haegeman (1995). The complex realisation of sentence negation is instead derived from other factors. In particular, following Ladusaw (1992), I propose that expressing sentence negation in Romance languages is subject to an overt syntax requirement: an NC term must be in a c-commanding position over the VP before Spell-Out and a negative connective is inserted whenever the NC term does not directly satisfy the constraint.

1. On Negation: NPI Licensing, DN and NC

1.1. Overview: English Negation

We traditionally distinguish between negative polarity items (NPIs) licensing, double negation (DN) and negative concord (NC).

Starting with DN, in Standard English, two instances of negation, *no one* and *nothing* in my example, leads to a positive interpretation which can be glossed as "everyone has some or other intrinsic quality/value".

(1) no one is worth nothing

If we take seriously the hypothesis that natural language meaning is algorithmic in nature, then the phenomenon of double negation in natural languages can be captured by the corresponding valid step of inference[1] in logic where two negations are allowed to cancel each other out (line 4 of the proof):

(2) Q and P are predicates

1. Q
2. Q--> ¬¬P
3. ¬¬P MP1,2
4. P DN3

To put it differently, the positive interpretation which we call a DN reading in natural languages is derived from the fact that there are two negative elements of which the negative forces are cancelled out similarly to a process of DN application in logic. Therefore, in natural languages, a DN reading can be derived in a strict algorithmic fashion.

Another way to express negation in English is given in (3):

(3)
a. Mary did not see anyone
b. Mary does not believe that anyone will succeed
c. Mary denied that anyone would succeed
d. Mary was surprised that Arsenal would loose to anyone

[1]Three valued logics do not appear to give the right prediction for the interpretation of multiple negations in natural languages as the step of inference DN is not valid.

(3) illustrates NPI licensing which has been extensively studied since Klima (1964) introduced the + affective feature. A NPI is an indefinite term which must appear in the scope of special lexical items known as affective elements. We therefore have a contrast between (3) and (4):

(4) a. *Mary saw anyone
b. *Mary believes that anyone will succeed (as a NPI)

The sentences in (3) and (4) all contain the English NPI *anyone*, but only when the NPI *anyone* is licensed by an affective element (that includes negation) is the derivation well-formed. I propose to look at the formalisation of NPI licensing keeping to our initial assumption that natural languages are algorithmic in nature.

1.2. Ladusaw's (1979;1983) Downward Entailing Expressions

Consider the sentences in (3) and (4) again:

(3) a. Mary did not see anyone
b. Mary does not believe that anyone will succeed
c. Mary denied that anyone would succeed
d. Mary was surprised that Arsenal would loose to anyone

(4) a. *Mary saw anyone
b. *Mary believes that anyone will succeed (as a NPI)

In (3a) and (3b), *anyone* is licensed by negation and in its absence the sentences becomes ill-formed. Turning to (3c) and (3d), the NPI *anyone* is somehow licensed despite there being no overt realisation of negation. In order to capture the well-form of examples such as (3c) and (3d), while ruling out the sentences in (4), Ladusaw proposes to define the class of licensing expressions as a special type of function. The functors which license NPIs have in common the semantic property of being downward entailing or polarity reversing as defined below (Ladusaw 1983):

(5) An expression (d) is a DEE or polarity reverser IFF its denotation function d' is such that:

$$\forall X, \forall Y[X > Y \Rightarrow d'(Y) > d'(X)]$$

In (5) the symbol > expresses a relation from set to subset. A DEE is a functor which, when applied to argument X and argument ϒ, where X and ϒ denotations are partially ordered, will entail the reversal of the partial order relation "subset of" that holds between X and Y (the denotations of X and ϒ). For instance, if the denotations of X and ϒ are sets such that X and Y are in a subset/superset relation and the functor applied to them is a determiner which denotes a function from sets to sets of sets then the relation of inclusion between the denotation of X and ϒ will be reversed. To give an example, if X is the set such that X={ x:x is a father} and it is a proper subset of Y where Y={y:y is a man} then, the denotation of *no man* construed by the application of the denotation of the functor *no* to its argument denoted by X is the set of sets that is properly included in the set of sets which denotes the NP *no father*. As a consequence, the determiner *no* is a polarity reverser function and licenses entailments from the general to the particular:

(6) no man walks --> no father walks

In (6) *no man walks* entails that *no father walks* in a world where "all fathers are men". Informally, we can understand downward entailments as a semantic property that ties in with negation, but is not restricted to it. Under this definition, expressions other than negation can license NPIs. The definition above which differentiates NPI licensors in terms of meaning predicts that the NPI licensor can be of any syntactic type as long as its semantics satisfies the condition in (5)[2]. The licensing of the NPI itself by a DE expression involves a functor argument relation. This semantic restriction on NPI licensing is however insufficient. Ladusaw (1979) argues that some reference must be made to the syntactic configuration in order to account for the subject/object asymmetry below.

(7) a. *Anyone did not come

b. I have not seen anyone

[2] Szabolsci and Zwarts (1990) who argue that the NPI class is not homogeneous one have proposed a finer grained characterization of NPIs licensers to capture the fact that, for instance, the DE property is not a sufficient (semantic) condition to license certain NPIs.

The constraint proposed is one of linear precedence between the functor and the NPI in the overt syntax[3]. In (7), the subject like the object is the argument of the negated predicate, however in (7a) the downward entailing functor *not* does not linearly precede the subject NPI *anyone* in the overt syntax. (7a) is therefore ruled out.

Finally, the overall interpretation of a NPI licensed by negation which is equivalent to that of a negative quantifier can be derived algorithmically:

(8) a. I did not see anyone

b. I saw no one

Assuming that in (8a) the NPI *anyone* is an indefinite term which occurs in the scope of a morphologically identifiable negative element (*not*), then by function composition of the negative operator and the existential quantifier (8a) is truth conditionally equivalent to (8b).

1.3. NC Effects: Ladusaw (1992)

Another way to express sentence negation in natural languages is called negative concord (NC). NC is informally described as the interpretation of what appears to be a series of negative elements as a single instance of negation. To give an example, in canonical contexts[4], we note that in some dialects of English, referred to from now on as NC dialects of English[5], the three elements *not*, *no one*, *nothing* are taken to be negatives in (9):

(9) a. no one saw the dog

b. I didn't see the dog

c. nothing is available yet

However, multiple occurrences of the negative elements in these same languages are

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[3]Or c-command in a right branching structure.

[4] Informally, we can call canonical contexts, contexts limited to the clause as opposed to intrasentential contexts.

[5]As discussed in Chapter 1, I use the term dialect/languages to refer to the same concept: a different steady state of the language faculty. All the examples in this section are illustrative of the expression of sentence negation in NC dialects of English.

interpreted as if only the first one was, the others receiving an existential narrow scope interpretation.

(10) John hasn't seen nobody (Ladusaw 1996:338)

The formal characterization of NC effects is slightly more sketchy and there are two reasons for it. Firstly, an NC interpretation means that the individual contribution of NC terms to the overall interpretation is akin to that of NPIs under the scope of negation. In fact, this observation has led some linguists to not always distinguish between the two. Ladusaw (1992) (1996) however conclusively shows that NC effects cannot be reduced to a NPI account. In canonical contexts different licensing constraints hold of NC terms and they can be summarized as follows. Firstly, the distribution of NC terms is distinct from that of NPIs. NC terms need not be in the c-command domain of a negative element. Consequently, an NC term can occur in subject position in the overt syntax, unlike NPIs[6].

(11) a. no one was not available

b. *anyone wasn't available

Moreover, a subject NC term does not need a lexical licensor, as shown in (12).

(12) no one was available

Lexical licensing is only required when the NC term is inside the verb phrase (VP) (eg.(13b) but not (13a)).

NC dialects of English[7]

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[6] Of course, NPIs are allowed in the subject position provided that an overt DE expression linearly precedes it:

() didn't anyone see this?

[7]See Ladusaw (1996:207):

(I) Mary talked to nobody

(ii) Mary talked to somebody

The ill-formedness of (I) in a NC language is important. "It shows that the context sensitive assignment of meaning would have to be inherently relational in the sense that the assignment of meaning would not depend only on structural position of the item but other items in the clause".

(13) a. *Anna saw no one

b. Anna didn't see no one

c. no one feared nothing

The NC terms set of permitted licensors is itself distinct from that of NPIs. In particular, NPIs can be licensed by DE expressions whereas an NC term licenser must always satisfy the stronger semantic property of anti-additivity[8]. Concretely, an NC term inside the VP can only be licensed by another NC term as in (15c).

The second problem with NC effects is how to formalise them while retaining as a working assumption the fact that natural language meaning is an algorithm of some sort[9]. The interpretation of the NC terms appears to vary along two parameters. It depends on the structural position of the NC term. Below the VP, an NC term invariably receives an existential interpretation:

(14) I didn't see no one

Above the VP, the interpretation of an NC term is not only relative to the configuration, but also to the occurrence of other NC terms in the sentence.

(15) a. Helen never saw no one

b. no one never saw the dog

The NC term *never* occupies the same position in (17). In (17a), however, the adverb *never* has a negative interpretation whereas in (17b) it is interpreted rather like the indefinite *ever*. To capture these facts, we can either take the NC term to be a negative element in its own right or analyse it as an existential quantifier or variable. The first alternative means that when there are two or more NC terms, we somehow have to disregard the negative force of all, but one NC terms to derive the right interpretation. The other alternative raises the question of

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[8]A function f is anti-additive iff $=^{Def}$ $f(A \vee B) = f(A) \wedge f(B)$.

[9]Usually, reference is made to some version of the principle of Compositionality which represents a stronger constraint on the mapping between the syntax and the semantics.

where the negative force should come from, if not from the lexical meaning of the NC terms themselves.

1. 4. Conclusion

We have seen with reference to dialects of English that it is possible to morphologically and syntactically distinguish NPI from NC licensing. In the next section, I propose to consider the Standard French sentence negation structure in this light, asking, in particular, whether it can be said to pattern alongside the NPI licensing account or the NC term licensing account.

2. The *Ne...Rien/Pas/ Personne* Construction

I propose to reconsider the evidence for and against analysing the complex structures *ne...pas/personne/rien* of StF as an instance of NPI licensing where *ne* licenses the NPI *pas/personne/rien*. I argue ultimately in favour of an NC analysis of *personne/rien*; this conclusion being backed up by the fact that in French "NPIs are concurrently in use [to *personne/rien*] offering the luxury of an easy comparison"(Deprez 1995:8).

2.1. An NPI Licensing Analysis: Some Motivations

I consider here the arguments in favour of an NPI type analysis of the *ne...pas/personne/rien* construction. Sentence negation is realised as a structural complex in Standard French. That *pas/personne/rien* always combines with *ne* can be explained by the licensing requirement imposed on NPIs. Namely, they must occur in the scope of a DEE. In the case considered here, the *ne* element is the c-commanding negative operator which licenses the NPI *pas/personne/rien*. This hypothesis is supported by the fact that, in StF, multiple instances of *personne/rien, plus, jamais* licensed by *ne* are interpreted as if there was only one negative element (the data and gloss are from F. Corblin 1992).

(16) a. personne n'aime personne
no one likes anyone
$\neg\exists x, \exists y[x \text{ loves } y]$

b. personne ne lit aucun roman

no one reads any novels

$\neg\exists x, \exists y[x \text{ reads } y]$

As shown by Deprez's careful comparison between *personne/rien* and the French NPI *quoique ce soit/qui que ce soit* whose findings I summarize below, when *personne/rien* is not licensed by *ne*, it is subject to the same distributional restrictions and interpretation as the French NPI *quoique ce soit/qui que ce soit*.

Firstly, (17a) illustrates the case of NPIs licensed by a DEE expression, and (18) by a *yes/no* question.

(17) a. Mary denié que personne/ qui que ce soit reussisse [10]

Mary denies that anybody will succeed

b. *Md le ministre croit que personne/ qui que ce soit reussisse

the minister believes that anybody will succeed

(18) a. avez-vous jamais vu personne pleurer? (Corblin ms:1992)

have you ever seen anyone crying?

b. avez-vous vu qui que ce soit pleurer?

have you seen anyone crying?

In (17), *personne* like *qui que ce soit* must be in the scope of a DE expression in order to be licensed. (17a) contains the expression *denier* which satisfies both the definition of DE and the structural requirement of overt c-command of the NPI; *qui que ce soit* and *personne* are therefore licensed in (17a). In (17b), however, there is no DEE to license *qui que ce soit* or *personne* and the derivation is ruled out, as required. In (18), the interrogative contexts similarly license *qui que ce soit* and *personne*. Secondly, in the examples above, *personne* receives the same interpretation as that of the French NPI *qui que ce soit* or English *anyone*. It is interpreted as a narrow scope existential quantifier. Thirdly, both *personne/rien* and *qui que ce soit/quoique ce soit* are subject to strong islands:

(19) a. *engager personne n'est permis

[10] There seems to exist some variations in the use of the *ne* element in conjunction with NPIs such as *quique ce soit/quoique ce soit* or *de*. Cf. Von der Wouden (1994) remarks on *ne*.

b. *inviter qui que ce soit n'a pas été facile (Deprez 24:1995)
hiring no one is permitted

(20) a. *le frère de personne n'a mangé
b. *le frère de qui que ce soit n'a pas mangé
nobody's brother ate

(21) a. *Fred ne désire rester en ville pour aider personne
b. *Fred désire ne pas rester en ville pour aider qui que ce soit
Fred doesn't want to stay in town to help anybody

Finally, Kayne (1989) has shown that *ne* functions as a scope marker for sentence negation. Taking the case of restructuring clauses the difference in interpretation between (22a) and (22b) is due to a difference in scope of the negative concord term *personne* itself relative to the position of *ne*. *Personne* has a wide scope interpretation when *ne* is generated in the matrix clause, but a narrow scope interpretation, if *ne* does not c-command the restructuring verb *aller* in the matrix clause, as in (22b):

(22) a. il ne va voir personne
what he will not do is see anyone
b. il va ne voir personne
what will happen is that he will not see anyone

If we assume, as proposed by Kayne, that a scope marker is a semantic operator, then *ne*'s function as a scope marker lends some support to an analysis where *ne* is a negative operator which binds the existential quantifier (or existentially closed variable) *personne*.
Some problems, to which I turn in the next section, however, arise with the NPI account of *ne...pas/personne/rien* construction.

2.2. Problems

2.2.1. The *Ne* Element

We are working with the hypothesis that *ne* licenses the NPI *pas/personne/rien*. The French NPI *qui que ce soit/quoique ce soit* should therefore also be licensed by *ne*. However, as

shown below, only the complex *ne...pas* licenses *qui que ce soit/quoique ce soit* .

(23) a.*il n'aime quoique ce soit
he does not like anything
b. *Mary ne croit que qui que ce soit réussisse
Mary does not think that anybody will succeed
a. il n'aime pas quoique ce soit
he does not like anything
b. Mary ne croit pas que qui que ce soit réussisse
Mary does not think that anybody will succeed

In fact, the relevant generalisation is that *ne* only expresses negation as part of a complex structure, as illustrated in (24).

(24) a. * je n'aime les fruits
I don't like fruit
b. je n'aime pas les fruits
I don't like fruit

Ne can appear alone, but solely in environments where NPIs are licensed:

(25) a. il faut éviter que les relations ne se dégradent (von der Wouden)
it must avoid that the relations NEG REFL get worse(SUBJ)
the relations should not get worse
b. Il faut éviter qu'il achète quoique ce soit
it must avoid that he buy(SUBJ) anything
he should not buy anything

Von der Wouden (1994) argues that *ne* having the same distributional properties than NPIs is in fact a polarity sensitive item. It is debatable, whether this conclusion can be upheld, but let us look at the data introduced by von der Wouden (1994) which systematically shows that *ne* is not a negative operator.

Firstly, NPIs fail to be licensed when polarity reversal effects arise from DN where two

negations cancel each other out (eg. Entailments are reversed from downward to upward monotonic). The same can be shown to hold of *ne*.

(26) a. je crains qu'il (ne) fasse cette faute (von der Wouden)
I fear that he (NEG) make(SUBJ) this mistake
I am afraid that he will make this mistake
b. je ne crains pas qu'il (*ne) fasse cette faute
I NEGfear NEGthat he (*NEG) make(SUBJ) this mistake
I am not afraid that he will make this mistake

In (26b), *ne* cannot be licensed by the DE verb *craindre* modified by sentence negation since the context has become upward monotonic as a result of the cancellation of the downward monotonic entailments of both *craindre* and sentence negation. Secondly, *ne* alone does not affect the truth value of the sentence although an element like *not*, which is a negative operator, does. For instance, the truth value of (27a) with a *ne* element is equivalent to that of the declarative sentence in (27b) without it.

(27) a. je crains qu'il ne vienne
I fear that he NEG come(SUBJ)
I am afraid that he will come
b. je crains qu'il vienne
I fear that he come(SUBJ)
I am afraid that he will come

Thirdly, *ne* does not participate in a DN readings when introduced in the scope of another DE expression:

(28) je crains qu'il n'apporte de mauvaises nouvelles
I fear that he NEG bring(SUBJ) DE bad news
I am afraid that he will bring bad news

In (28), no polarity reversal effect follows from introducing *ne* as indicated by the presence of the NPI *de*.

To sum up so far, the NPI analysis is questionable since *ne* is not a negative operator when licensed to occur alone and it only expresses negation as part of the complex *ne...pas.* I propose to give additional evidence that the NPI analysis of the Standard French construction *ne...pas/personne/rien* is on the wrong track, and ultimately has to be rejected.

2.2.2. Pas/Personne/Rien

In this section, I look at the contribution to the interpretation of *pas, personne* and *rien* and the constraints imposed on their licensing in canonical contexts, following closely Ladusaw's (1992) (1996) argumentation.

The licensing conditions on *pas, personne and rien* differ in several ways from those of NPIs. In particular, in canonical contexts, *personne/rien* can be licensed by *ne*, unlike the French NPI *qui que ce soit/quoique ce soit.*

(29) Anna ne voit personne/*qui que ce soit
Anna does not see anyone

Moreover, we have seen that, in English, a clause internal licensor can only license an object NPI. This subject/object asymmetry is accounted for by the linear precedence requirement in the overt syntax imposed as a condition on the licensing of NPIs (Ladusaw 1979). The same asymmetry also exists in the case of the French NPI *qui que ce soit/quoique ce soit* when licensed by *ne...pas.*

(30) a. il n'aime pas quoique ce soit
he does not like anything
b. *qui que ce soit n'a pas vu Lea
*anyone did not see Lea

On the other hand, *personne/rien* does not have to be c-commanded by *ne*. It follows that *personne* can occur in a subject position unlike the French NPI *quique ce soit/quoi que ce soit* or the English NPI *anyone*.

(31) a. personne ne vient aujourd' hui

no one is coming today

b. Anna ne voit personne

Anna does not see anyone

In non canonical context the reverse, holds: whereas *personne/rien* cannot be licensed in subject position, *quique ce soit/quoique ce soit* can:

(32) a. je n'ai exigé qu'ils arrêtent personne (Kayne 1989)

I have not required that they arrest anyone

b. *je n'ai exigé que personne soit arrêté

I have not required that anyone be arrested

(33) a. je n'ai pas exigé qu'ils arrêtent qui que ce soit

I have not required that they arrest anyone

b. je n'ai pas exigé que qui que ce soit soit arrêté

I have not required that anyone be arrested

The interpretation of the elements *personne/rien* is also distinct from that of NPIs in several respects. When *ne* is clause mate to *personne/rien*, *personne/rien* does not receive an existential interpretation like *quique ce soit/quoique ce soit*, but a negative one.

(34) a. personne n'a regretté de (n')avoir rien mangé (Deprez 1995:25)

no one has regretted to have eaten nothing

b. personne n'a regretté de (n') avoir mangé quoique ce soit

no one has regretted to have eaten anything

We have seen that the data and interpretations in (16) reproduced below represent the standard case:

(16) a. personne n'aime personne

no one likes anyone

$\neg\exists x, \exists y[x \text{ loves } y]$

b. personne ne lit aucun roman

no one reads any novels

$\neg\exists x, \exists y[x \text{ reads } y]$

Several factors however may intervene to yield a DN reading. A DN reading of the sentences in (16) above can be available with, as discussed by Corblin (1995), an appropriate stress. So, (16a) is in fact "ambiguous between the "world without love" NC reading and the DN "everybody is loved by someone" reading. Moreover, *personne/rien* in combination with *pas* as in (35a) give rise to a DN reading which results from the cancellation of the individual negative force of two separate negations. On the other hand, when we replace *personne* with *quique ce soit* as in (35b), the sentence receives a negative interpretation.

(35) a. Mary ne voit pas personne
Mary sees someone
b. Mary ne voit pas qui que ce soit
Mary sees no one

In addition, *personne/rien* and *pas* can act as free standing negatives; (36) and (37) show that non sentential negation in Standard French is expressed by the element *pas* or *personne/rien* alone.

(36) a. un livre sur rien est invendable
a book about nothing is unsaleable
b. *un livre sur rien n'est invendable
a book about nothing is unsaleable

(37) a. cette histoire est devenue pas triste
this story has become not sad
b. *cette histoire n'est devenue pas triste
this story has become not sad

Finally, we have taken the view that an adequate linguistic theory is algorithmic in nature. We can further constrain our linguistic theory by assuming the principle of compositionality[11].

[11]The PC is in principle incompatible with the Chomskyan thesis of the autonomy of syntax since it assumes that the way the syntax is devised is dependent to a certain extent on interpretation. Nevertheless, Chomsky (1977) argues that the PC is useful as a working

The principle of compositionality states that: "the meaning of an expression is a function of the meanings of its parts and of the way they are syntactically combined" (Partee 1984:281). Turning to the NPI account of the *ne...personne/rien* construction, the assumption is that *ne* acts as the (negative) licenser of the restricted variable/existential quantifier *personne/rien.* However, we have reached the conclusion that the opposite holds true. *Pas* or *personne/rien* is a free standing negative whereas *ne* on its own does not contribute any negative meaning to the interpretation. So, although, as argued by Partee, "we need not take the parts to be the immediate parts" it seems difficult to uphold that the meaning of the whole is obtained by a function application inverse to that of the NPI account.

2.3. Conclusion

To sum up, the licensing conditions on *personne/rien* are distinct from those of NPIs. Firstly, *personne/rien* do not display any subject/object asymmetry. Secondly, *personne/rien* can be licensed by *ne* alone. This pattern however is not predicted by the standard NPI licensing account. I have also shown that *ne* alone can only occur in DE contexts and has no negative meaning. *Pas* and *personne/rien,* on the other hand, can express non-sentential negation and participate in DN readings. It means that, when breaking down the complex *ne...pas/personne/rien*, none of the elements individual contribution to interpretation matches the contribution to interpretation attached to respectively DE expressions and NPIs. In other words, if we take compositionality seriously the NPI account will not do.

I conclude that the empirical evidence available shows that NPI licensing is not involved in the case of *personne/rien* and *pas* although it is perfectly compatible with the interpretation and distribution of the element *qui que ce soit/quoique ce soit*. A possible move is to analyse the StF complex *ne...pas/personne/rien* as an instance of NC since we have two elements involved in expressing sentence negation, but only one resulting negative meaning. I propose to introduce the formalisation of NC before looking at a possible implementation of Ladusaw's (1992) NC analysis to the StF *ne...personne/rien* structure.

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assumption: "Considerations involving the core notions of semantics do not enter into the selection of a formal Grammar [eg. the real object; language]. But, of course, such semantic considerations do enter into the choice of the theory of linguistic form" (Chomsky 1977:43).

3. The Formalisation of NC : Neg Feature Agreement Analyses

All the current syntactic analyses of NC share the idea that a relationship always holds between the lexical elements which participate in the expression of sentence negation, now uniformly referred to as NC terms, and a given structural position specified for a neg feature[12]; a notable exception being Deprez (1995). Laka (1990) proposes that the neg feature on the FPs rather than DEEs as in the case of NPIs are NC terms licensors. Most of the analyses however take the view that the function of the neg feature, which all the NC terms and a functional projection are specified for, is to mediate and control the relationship between the lexical elements and a higher structural position.

To capture the NC reading, two hypotheses have been investigated. The NC term is a negative element in its own right (Zanutttini 1990, Hageman and Zanuttini 1992; Haegeman 1995) or it is an indefinite (either a variable Ladusaw 1992, Acquaviva 1997 or the equivalent of an existential quantifier Deprez 1995). The choice of lexical semantics chosen for the NC term has varying consequences for the syntax if assumed to work in tandem with the semantics.

Zanuttini and Haegeman propose that the multiple raising of negative quantifiers which builds a complex syntactic object is a way to avoid having too many negations. On the other hand, Ladusaw (1992) who assumes that the negative force comes from a position, identified here as the NegP, equates a NC reading to the presence of a unique NegP in the derivation. How the locality constraints are specified is also dependent on the type of lexical semantics adopted. For instance, in first order logics strong quantifiers (quantifiers which have quantificational force of their own) are interpreted at the level of the sentence. Strong quantifiers are therefore said to move to a scope position at LF. The locality constraints of NC dependencies can therefore be motivated by the negative operator/negative quantifier status of the NC terms under the NC term as a weak indefinite account (Ladusaw (1992) and similarly in Acquaviva (1995) (1997)), there is no intrinsic need for movement since the indefinite is interpreted in situ as a variable bound by an existentially negated operator. Ladusaw does not address this issue, but Acquaviva (1995) consider two solutions. Firstly, Acquaviva proposes that the operator variable binding relation is represented in the syntax although he adds a government requirement which forces partial covert neg raising enabling

[12]The NegP will be used here as a heuristic tool.

him to account for the ECP effects of NC dependencies. Secondly, Acquaviva considers a syntactic neg features transfer mechanism divorced from the lexical semantics of the NC terms (NC terms remain in the semantics variables bound by a negated existential operator[13]). Deprez (1995) explores another strategy, proposing that NC effects in StF are not derived from their underlying negative meaning (or that of an abstract neg operator) and there is no syntactic relation between NC terms and a structural position. Instead, NC terms in StF are 0-numerals with a strong reading; the locality constraints on NC dependencies being derived by QR.

3.1 A Precursor: Laka (1990)

Laka's (1990) analysis of Spanish n-words is a precursor to the accounts of negative concord in the sense that, in order to capture the licensing requirements on n-words, she shifted the emphasis given to the semantics in the NPI analysis to the syntax . Yet her syntactic analysis is distinct from her successors in that hers is not a neg feature agreement analysis.

Laka proposes that n-words, similarly to NPIs, are subject to licensing conditions. However, n-words licensing has more to do with the sentence structure than the sentence meaning. Firstly, functional categories rather than downward entailing expressions (DEEs) license n-words. In particular, either the functional category NegP or [+neg]CP, triggered or selected by a DE expression in the higher clause similarly to [+wh]CP selection by a predicate subcategorising for questions, licenses a n-word. Secondly, Laka proposes that n-words

[13]Not always true though: Despite near identical structural representations in LF, Acquaviva (1995) makes a distinction between DN languages and NC languages. In DN languages, NC terms are not indefinites, but "operators" (either connective or strong quantifiers) which, on highly marked readings, can undergo resumptive quantification following the standard Haegeman/Zanuttini(1992)-style analysis. The "operator" analysis of English sentence negation means that the standard Sigma configuration must obtain. The NC term in English is therefore in the Spec of the NegP at LF. The contrast between English and Italian locality constraints inside reasons adverbials is shown below (1997:40). English *no*N' cannot have sentential scope:

(i) Gianno non a scritto questo libro per nessun motivo particolare
Gianni has neg written this book for no particular reason
Gianni hasn't written this book for any particular reason

(ii) John would eat that stuff for no reason

I do not review this analysis as it largely follows Haegeman and Zanuttini (1992) proposal

unlike NPIs in English[14] which are subject to c-command requirement only, can be licensed under two configurations: either (i) S-level c-command by a clause mate [+neg]CP or an overtly realised clause mate NEGP[15], or (ii) a Spec-Head relation under the NegP. I propose to review the (i) clause c-command licensing constraint, and, next, discuss the data accounted by (ii).

The functional projection licensing analysis in (i) predicts the following pattern:

(38) a. *Carmen vio a nadie
Carmen saw anyone

b. Carmen no vio a nadie
Carmen did not see anyone

c. *Carmen duda nada
Carmen doubts anything

d. Carmen no cree que Maria vea a nadie
Carmen does not think that Maria will not see anyone

e. Carmen duda que Maria vea a nadie
Carmen doubts that Maria will see anyone

The object n-word *a nadie/nada* must be licensed by the overt instantiation of a c-commanding NegP hence (38b), but not (38a) is well-formed. Clause (i) of the functional category licensing requirement also explains why *no* in (38b) as the head of a NegP under standard analyses can license a clause mate n-word whereas *dudar* in (38c) and other DEEs distinct from sentence negation cannot. The DEE in (38c) does not qualify as a licensor since it belongs to the V and not the Neg category. DEEs which do not instantiate a NegP can however select a [+neg]CP. In (38d) and (38e) the n-word is licensed by a [+neg]Comp selected by a DEE, of which *no* and *dudar* are both instances. In other words, Laka assumes that the well formed derivations in (38b) and (38d&e) have the following underlying structures:

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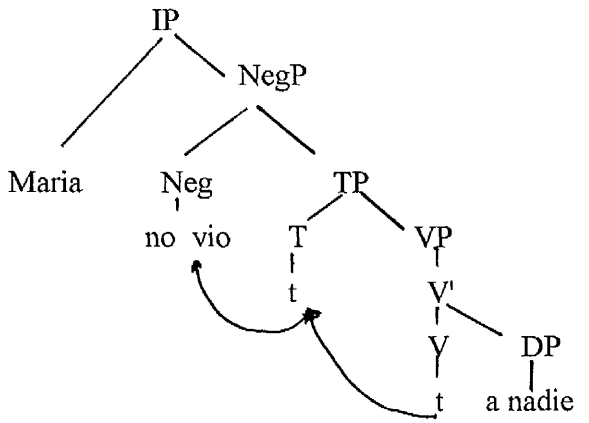
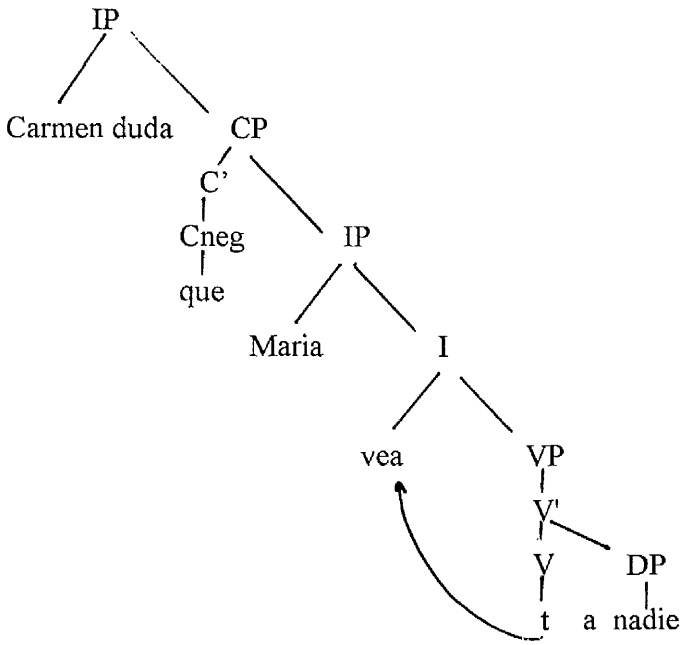
[14] I set aside the French NPIs data which were shown to be sensitive to strong islands.

[15] ΣP in her terminology. The distinction is not relevant here.

(39) NegP licenser:



(40) [+neg] CP licenser:



The variation between the [neg] and [-neg]Comp is motivated by the Basque data. Basque has two distinct complementisers namely *duela* and *duemik* which roughly correspond to the two abstract categories [neg] Comp and [-neg]Comp posited above.

(41) a. *Inigok ez du sinisten [eserk eztanda egingo duela]
Inigo no has believed anything explode do will that
Inigo does not believe that anything will explode

b. Inigok ez du sinisten [eserk eztanda egingo duemik]
Inigo no has believed anything explode do will that[neg]
Inigo does not believe that anything will explode

Moreover, assuming that Comp selects IP and that [neg] Comp always selects a subjunctive IP then we can explain why, additionally to having a DEE in the higher clause, the subjunctive mood in the lower clause is required in order to license a n-word in Spanish.

(42) a. Carmen duda que Maria vea a nadie
Carmen doubts that Maria saw anyone
b. *Carmen duda que Maria vio a nadie
Carmen doubts that Maria saw anyone

The ill- formed (42b) differs minimally from (42a), a case of [neg]CP licensing. In (42a), the lower clause is marked + subjunctive whereas in (42b) it is not. If, by hypothesis, the syntactic realisation of [neg]CP requires a subjunctive, then the indicative mood of the lower clause in (42b) indicates that (42b) lacks a [neg]CP licenser. Since there is no overtly realised clause mate NegP either, we predict that the sentence in (42b) is ill-formed; neither i) nor ii) holds.

So far, we have seen that a n-word can be licensed by an appropriate c-commanding functional projection (ie. NegP or [neg]CP), but this is not the only type of licensing involved. Laka argues that a n-word can also be licensed by virtue of its position in the Spec of the NegP. Consider now the data below:

(43) a. no vino nadie
no one came
b. *vino nadie
no one came
c. nadie vino
no one came
d. *nadie no vino
no one came

We have seen that the object in (43a) is licensed by the c-commanding NegP whose head *no* is overtly realised. On the other hand, when the n-word is fronted or is in subject position as in (43c) *no* is absent. The hypothesis here is that the n-word occupies the specifier of the NegP, and its head does not have to be phonologically realised. The pre/post verbal asymmetry which exists in Spanish therefore reduces to two distinct types of configurational licensing. Empirical evidence in support of this analysis is available. Firstly, no two n-words can occur preverbally implying that there is a unique position available above the VP.

(44) *nadie en ningun lugar juega
no one plays in any place

The position occupied by *nadie* in (44) must be a specifier position since specifier positions only make one slot available[16]. On the other hand, adverb placement indicates that a subject n-word occupies a position distinct from that of the Specifier of the IP.

(45) a. Maria frecuentamente canta en la ducha
Mary often sings in the shower
b. *nadie frecuentamente canta en la ducha
no one often sings in the shower

The empirical evidence is therefore compatible with an analysis where the preverbal n-word is in the specifier of the NegP. Clause (ii) therefore licenses sentence negation in NC languages.

To sum up, under Laka's analysis the n-words are variables which are bound by a functional projection specified for a neg feature or are in the specifier of that functional projection.

3. 2. Haegeman's and Zanuttini (1992) Neg Criterion

In chapter 1, I reviewed the syntactic evidence in favour of covert raising to the specifier of the NegP as driven by the Neg Criterion. The definition of the Neg Criterion is reproduced

[16]Under the old GB framework assumptions which I will later revise in line with the MP. Under the MP we have multiple Spec available, but this is parametrised option.

below:

(46) Neg Criterion:

(i) A neg operator must be in a Spec-Head configuration with an X[neg];

(ii) An X [neg] must be in a Spec-Head configuration with a neg operator

Zanuttini argues that there is also some semantic evidence. Firstly, Zanuttini shows that NC terms are strong negative quantifiers and not polarity items. The main piece of evidence comes from adverbial modification by *almost/quasi* and the use of NC terms as non sentential negatives:

(47) a. quasi nessuno ha telefonato
almost no one has phoned
*(not) almost (not) anyone has phoned
b. Who ha telefonato? - nessuno
who phoned? -no one/*anyone

Secondly, in first order logics a quantifier has scope over the free variables of an open sentence. Taking the syntax of natural languages to (at least partially[17]) be a representation of the logical structure of first order quantification, then movement of a quantifier, and, by extension an NC term, to a sentence initial position can be motivated by the logical structure of first order quantification.

Haegeman and Zanuttini (1992) also further propose to derive the NC interpretation from quantifier absorption. Quantifier absorption is configurationally defined as a Σ sequence[18]. NC therefore obtains just in case the NC terms are in a Σ sequence in the Spec of the NegP as driven by the Neg Criterion.

Let's take a concrete example. In West Flemish (WF) the element *en* is the head of the NegP.

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[17]If we assume, following May's (1989) proposal, that quantifiers are stacked into a Σ configuration under the same MaxP, the representation of quantifier scope in the syntax is somehow indirect.

[18] May (1989) suggested the Σ configuration to model in the syntax scope ambiguities and inverse pronominal binding by multiple quantifier phrases in sentences of the Bach-Peters type.

According to the Neg Criterion an NC term must raise to its specifier at some point in the derivation subject to derivational constraints. This is illustrated in (48a).

(48) a. da ze [me niets] ketent en-was (Haegeman 1995:134)
that she with nothing contented en-was
that she was not pleased with anything
b. *da ze [ketent me niets] en was
that she pleased with nothing en-was

If the NC term fails to raise to the specifier of the NegP then the derivation is ill-formed. This is because the Neg Criterion that drives NC is a purely **computational** operation, and, as such, cannot fail to take place similarly to the checking operation[19]. This is what happens in (48b) where the NC term is *niets*. Presumably, because the NC in (48b) has not been scrambled to a position from which further raising can take place, it is prevented from establishing a Spec-Head configuration with the head *en* in violation of the neg criterion leading to the ill-formed (48b). The *en...niets* sequence however does not correspond to an NC reading. Sentential NC readings only arise when more than one NC terms raise to the specifier of the NegP and form a Σ sequence.

(49) da Valere ier niemand nie (en)-kent (Haegeman 1995:116)
that Valere here no one not (en)-know
that Valere doesn't know anyone here

In (49), the NC terms *niemand* and *nie* are assumed to be both in the specifier of the NegP at the interface with the C-I system forming a Σ sequence. In other words, multiple raising is needed to resolve the fact that we have too many negative elements in the derivation. The multiple NC terms in that configuration can then undergo **negative factorisation** which yields the NC reading of (49). More precisely:

"the negative constituents which are to enter into an NC relation raise at LF to form a complex quantifier from which the negation is factored out. Negative factorization, resulting in NC, obtains every time negative constituents are adjoined to the same maximal

[19]Although the Neg Criterion differs from the checking operation in several respects.

projection"(Haegeman and Zanuttini 1992:3.5).

This complex sequence formed is interpreted as one instance of negation through two processes. Firstly, following May (1989), the sequence of quantifiers, called Σ sequence is subject to quantifier absorption: The unary quantifiers form a n-ary quantifier derived from their combination. This quantifier which binds the same number of variables as there are quantifiers in the sequence retains the scope properties of its unary parts. So, for instance from the two unary quantifiers $\exists_I$ and $\forall_j$, the binary quantifier $\exists\forall_{I,j}$ can be formed where each component part of the new quantifier can take wide scope. This process is strictly compositional, and, out of the combination of the two unary quantifiers no_i and no_j, a binary quantifier $no_{i,j}$, which retains the properties of the unary quantifiers nρ and nρ, can be formed. The binary quantifier $no_{i,j}$ interpretation however does not correspond to the NC interpretation, but to a DN reading with the additional dimension of scope ambiguities[20].

(50) nobody loves nobody (May 1989:403)

In other words, in logical notation (50) is equivalent to either (51a) or (51b):

(51) a. $\neg\exists x \neg\exists y$ (x loves y) ie. $\forall x \exists y$ (x loves y)

b. $\neg\exists y \neg\exists x$ (x loves y) ie. $\forall y \exists x$ (x loves y)

An additional process called negative factorisation must therefore be invoked. If we decompose the meaning of *no* as $\neg\exists$ or $\forall\neg$, then the binary quantifier equivalent to the first case is $\neg\exists\neg\exists_{ij}$; giving $\neg\exists\exists_{ij}$ after negative factorisation has applied. The process of negative factorisation is however not equivalent to the well known process of factorisation which is distributive. For instance, the same meaning can be retrieved if you compute with or without

[20]Scope ambiguities of downward entailing quantifiers however are not attested in natural languages. For instance, Standard French (ia) can only be interpreted with *pas* having scope over the object quantifier and vice versa for the subject case (ib):

(i) a. Alain n'a pas vu rien
Alain has seen something
$\exists x$ (alain has seen x)

b. personne n'est pas venu
everyone came
$\forall x$ (x came)

factorisation -(2+3) and (-2-3) since their product is equivalent (ie. -5). Applying negative factorisation to $\neg\exists_i\neg\exists_j$ yielding $\neg\exists\exists_{ij}$ however does not retain this equivalence in meaning since $\neg\exists\exists_{ij}$ and $\neg\exists_i\neg\exists_j$ each corresponds to respectively a NC and a DN reading. In other words, the PC must be given up in order to adopt a neg factorisation analysis.

The West Flemish data also shows that when structural factors prevent a NC term from raising, then the sentence receives a DN reading. In other words, the cases where multiple NC elements fail to "check a neg feature" do not lead to ungrammaticality, but a DN reading.

(52) da Valere [$_{VP}$ an niemand [$_{VP}$ t_i durft [$_{VP}$ niets zeggen$_i$]]
that Valere to no one dares nothing say
*that Valere doesn't dare to say anything to anyone
that Valere doesn't dare not to say anything to anyone

In order to explain (52) Haegeman (1995) capitalizes on the fact that negation does not have to take sentential scope to receive an interpretation. A NC term specified for a neg feature can fail to raise and still be interpreted as constituent negation. NC terms therefore contrast with wh-elements which have as denotations a function defined only to apply to an open sentence thereby requiring that they raise and form a Σ sequence under the Spec of the CP. This explanation however cannot be motivated by the Neg Criterion, since it, like checking, is a "narrow mechanical requirement [which is not driven] by a search for intelligibility or the like" (Chomsky: 1993:33)[21]. In other words, the Neg Criterion cannot fail to apply, and predicts erroneously that the absence of multiple raising to the Spec of the NegP in (52) leads to an ill-formed derivation, and not a DN reading[22]. Let us thus consider the alternative where NC readings are motivated by the principle of full interpretation.

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[21]Moreover, we may ask whether (52) is indeed a case of constituent negation, and, vice versa, whether wh-elements which are fronted are true operators. It has been suggested, for instance, that wh-phrases or more precisely, in the case of the unselective binding analysis, a subset of them (ie. in-situ-wh-phrases) can be treated as unselectively bound variables.

[22]One option is to argue that the NC term in (52) raises to a lower NegP. This hypothesis however implies that a NegP can be inserted as a last resort operation to rescue a derivation which would be otherwise ruled out. I propose to set aside this issue as it would take us too far aside.

3.2. 1 Form Chain as Driven by FI (Brody 1995)

Taking the case of multiple wh-phrases in (53), the Q feature on both the target and each wh-phrase is an interpretable Q feature:

(53) what did you know Sarah bought to whom?

In other words, we are faced with multiple interpretable features at the C-I interface, where the principle of FI holds (Brody 1995:10):

(54) FI requires that no element without an interpretation appears at an interface level

This means that contrary to expectation we should have "multiple questions". In order to interpret the derivation as a unique question (ie. avoid having too many interpretable Q features[23]) Brody (1995) proposes that, firstly, it is chains[24] (primary or complex), and not categories (or features) that are interpreted. Secondly, the conditions under which the form chain operation takes place are captured by FI. (53) is interpreted as a single question because each wh-phrase is a member of a single (complex) wh-chain object. More precisely, the dependency established in (53) is one where a secondary chain <OP, to whom> is parasitic on a primary chain <what, OP>, and it is this complex (forking) wh-chain <what,OP, OP, to whom> which corresponds to a single wh-question.

We can adopt a similar proposal to account for the NC readings. Under this account sentence negation is not triggered by an NC term under a specific configuration, instead a NC reading corresponds to a single neg feature chain where the chain links are linked through a primary or complex (forking) negative chain formation process. A DN reading only arises when there are two separate chains. For instance, we can distinguish between the NC reading in (55a) which corresponds to a primary chain, and the DN reading in (55b) where two separate chains are involved.

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[23] Unlike in the case of anaphoric dependencies where each NP is referential in its own right.

[24]The same argument could be recast in terms of featural chains (cf. Brody 1995b).

(55) a. non ho letto nessun libro

I did not read any book

b. no one has read no book

All NC terms being specified for a (presumably interpretable) neg feature a Form Chain between the neg features takes place driven by FI giving the NC reading of (55a). However, if the form-chain operation is only motivated by interpretability, but multiple negations can be interpreted in natural languages, then it is not clear how the Form-Chain operation could take place at all (cf. Brody 1995b for a similar argument about multiple focus structures). The argument that FI motivates movement (chain formation) therefore fails to account for all NC readings. I propose to set this question aside and investigate another way which has been proposed to account for NC effects.

3.3. An Alternative Neg feature Agreement Analysis: Ladusaw (1992)

Ladusaw adopts a stripped down version of the neg feature agreement analysis proposed by Zanuttini (1990), Haegeman and Zanuttini (1992) and Haegeman (1995) to account for sentence negation in NC languages. Ladusaw does not concern himself however with its the nature or the conditions under which it takes place as the NC interpretation can be recovered largely without reference to it. More specifically, the contrast between DN vs NC readings does not result from a failure to enter into a Form Chain operation as argued in the previous analyses, but rather is dependent on the availability of multiple Neg projections. Ladusaw thus distinguishes between NC languages which have a unique NegP, and DN languages which can have more than one NegP. In NC languages, the NegP position is fixed above the VP, whereas, in DN languages, the NegP selects a DP. The initial assumption that NC terms are indefinites terms rather than negative elements motivates this hypothesis. To put it differently, the problem faced by Ladusaw is to account for the fact that there is an insufficient number of negative terms rather than too many as in the previous proposal.

Ladusaw (1992) proposes that NC terms are indefinites (similarly to Laka 1990) rather than inherently negative elements. More precisely, NC terms are free variables which are bound by a negative operator similarly to the NPIs treatment. However, rather than being lexically realised, the negative force depends on certain structural conditions obtaining in the syntax. In other words, expressing sentence negation, similarly to the treatment of existential

indefinites involves the larger properties of the sentence.

In Ladusaw (1992), the structural conditions under which the NC terms "acquire" their negative force are dependent on two factors. In NC languages, an abstract negative operator is triggered under the functional projection NegP above the VP equivalently to the treatment of indefinites subject to existential closure. However (56a) shows that, although there is a NC term specified for a neg feature[25], this is insufficient to license an abstract negative operator.

NC dialects of English

(56) a. *John said nothing

b. Lisa hasn't seen an elephant

Unlike existential closure which takes place automatically at a given structural level regardless of the position of the indefinite[26], another configurational constraint must hold. Triggering of an abstract negative operator only obtains when an NC term specified for a neg feature is in the NegP in the overt syntax. The object NC term in (56a) clearly below the VP does not satisfy the second constraint and (56a) is ill-formed. On the other hand, both conditions are satisfied in (56b). *Not* is an NC term and it occupies a position in the NegP. The negative operator at clausal level is therefore licensed. The negative concord reading in (57) between the three NC terms is derived from the fact that only *n't* satisfies the appropriate conditions on the licensing of an abstract operator although both the NC terms *nothing* and *nobody* are specified for a neg feature.

(57) Lisa didn't say nothing to nobody

In (57) above, *n't* is the only NC term under the NegP, and it is this which licenses a negative operator. We may assume that the other NC terms merely establish a chain relation with the higher NC term through a neg feature agreement mechanism.

To sum up, if we assume that NC terms are indefinites and there is a unique position from

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[25]Presumably a formal feature with no semantic content.

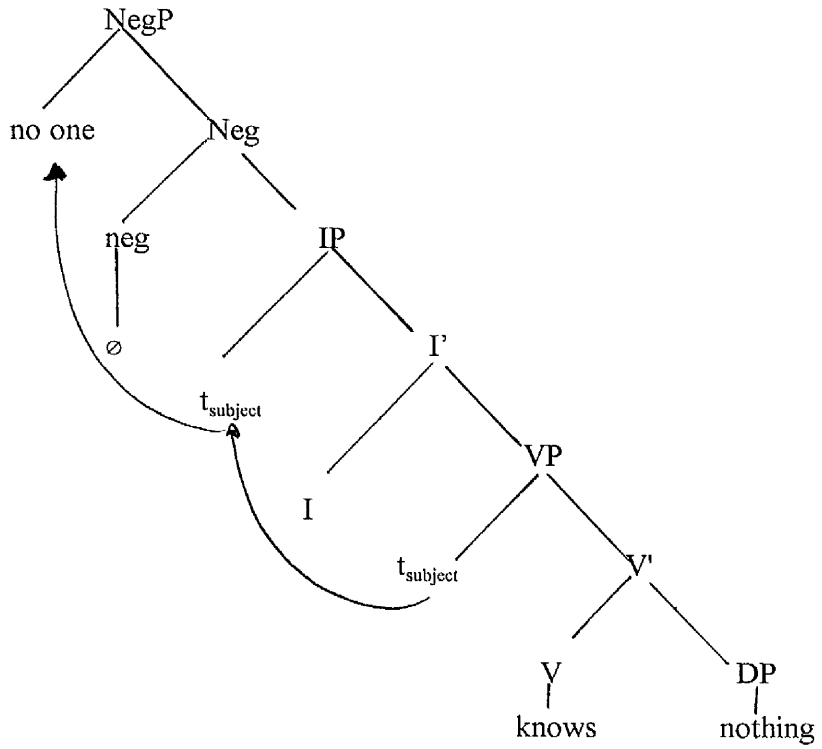
[26] Cf. Higginbotham who argues that "existential closure is not just a default closure for indefinites which are not bound by any other Q, but a constant feature of any sentence" (p.c. Rouveret).

which an NC term can license a negative operator, then we predict that in NC languages there is at most one negation per clause no matter what the number of NC terms present in the sentence is. On the other hand if a DN reading arises it is because there is more than one NegP. To illustrate with an example, (58) has two interpretations depending on whether we are dealing with an NC or a DN language:

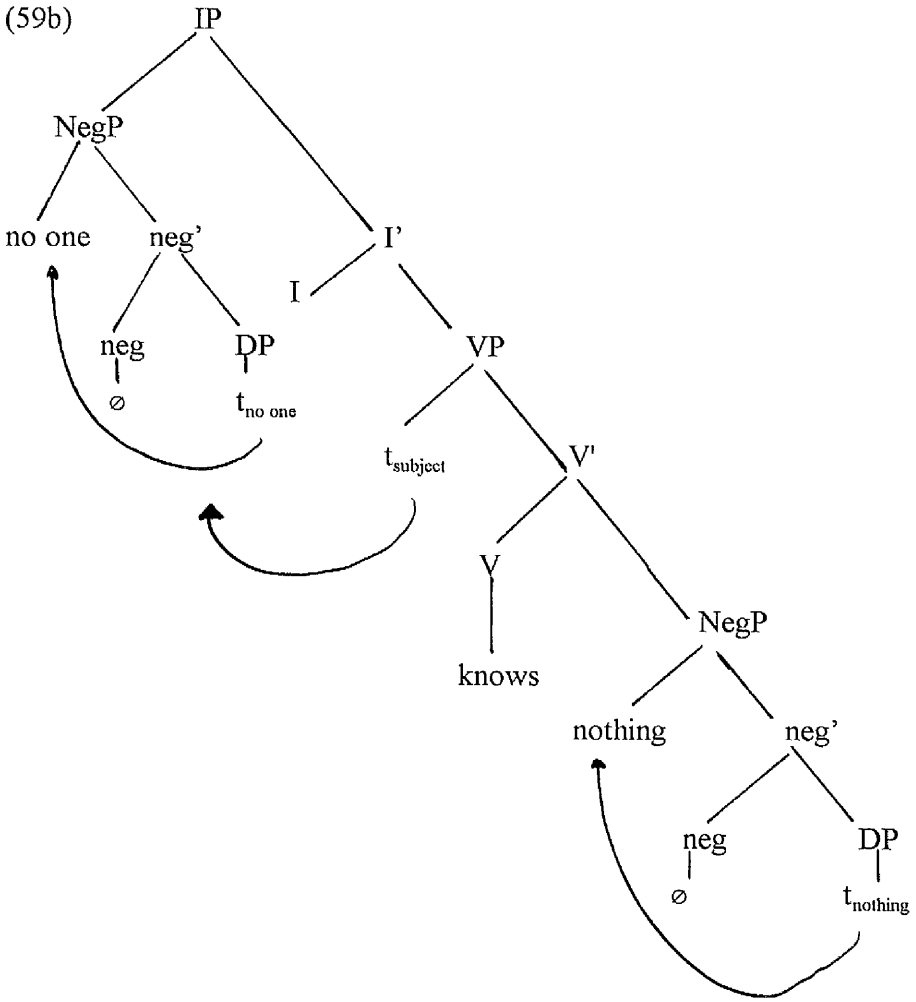
(58) no one wants nothing

In NC dialects of English, only one of the NC term appears to have a negative meaning in (58). This can be analysed as follows. Although all the NC terms are specified for a neg feature, they are in fact indefinites (eg. weak quantifiers) and do not express negation. Sentence negation is expressed under a unique position identified here as the NegP which c-commands the VP. Furthermore, this position must be licensed by an NC term. In (58), the subject NC term *no one* is taken to occupy this position and licenses sentence negation. By contrast, the object NC term *nothing* although specified with a neg feature does not license negation. It merely links up with the higher NC term *no one* and the NegP from its position inside the VP. On the other hand, when dealing with a DN dialect of English, each negative subject and object DP is dominated by a NegP. The abstract operator can be triggered at distinct loci provided that both *no one* and *nothing* raise to the specifier of the NegPs in the overt syntax (ie enter into a checking relation); each licensing one instance of negation. The two negative forces subsequently cancel each other out leading to the positive reading of (58). The two underlying structures which distinguish between a DN and an NC reading are given below:

(59a)


NegP
no one
Neg
neg
IP
∅
I'
$t_{subject}$
VP
I
$t_{subject}$
V'
V
DP
knows
nothing

(59b)


IP
NegP
no one
neg'
I'
I
neg
DP
VP
∅
$t_{no\ one}$
$t_{subject}$
V'
V
NegP
knows
nothing
neg'
neg
DP
∅
$t_{nothing}$

This analysis however does not predict that DN readings can arise in NC languages as was shown to be the case in West Flemish (WF) unless we envisage treating WF as a language which is in the process of loosing its NC status. It must also be pointed out that if we take sentential scope to be represented by the c-command domain of the NegP or the neg feature, then under the representation in (59b) the object NC term should only have local scope.

3.4. Acquaviva (1997;1997b)

Acquaviva (1997) also proposes that NC terms like NPIs are indefinites bound by a negated existential operator and considers two options in the syntax. Firstly, an empty syntactic operator binds the NC terms in the syntax comparably to the operator variable binding relation in the semantics; the claim being that "some relations of operator binding are visible in the syntax". Secondly, a neg feature transfer driven by FI accounts for NC dependencies (Acquaviva 1997b).

"The logical form of sentence negation corresponds to the closure of the event variable by a negated existential (semantic) operator": In other words, a (semantic) operator expresses sentential negation and licenses the other negative elements which are restricted variables.

3.4.1. Acquaviva (1997)

In the syntax, Acquaviva (1997) proposes that sentence negation mirrors the semantics in the following way. Firstly, a syntactic operator (in most instances empty) corresponding roughly to the semantic operators (the abstract existential and the negative connective which binds it) is in the Spec of the NegP as motivated by the opacity effects, discussed in Chapter 1 (cf. Also Ouhalla 1990). In other words, we do not have, as in the case of existential closure, an abstract operator[27] (ie "operators which are not projected in the P-marker").

Secondly, Acquaviva takes the view that A' movement is largely motivated by the structural

[27] "If two or more indefinites are associated with the negative connective¬ and they are all bound by a single [syntactic] operator, then the connective ¬ is uniquely interpreted on the [syntactic] operator" Acquaviva (1997:112).

definition of operators[28], where " an α-operator is an α-phrase in an A-bar scope position (where α=[+wh] or [+neg]) (1997:152). Consequently, the dependencies between the negative operator in the NegP and the lower NC terms, analysed as variables, are not captured by the Neg criterion or another movement account such as QR. Acquaviva proposes that NC terms dependencies are expressed in terms of binding similar to the operator binding analysis of wh-in-situ. The unselective binder of the NC variables is the syntactic operator in the Spec of the NegP headed by Neg^0 and it binds the NC terms through a co-indexation mechanism distinct from referential index sharing.

3.4.1.1. Partial Movement to the Spec CP

The binding mechanism invoked for NC terms, nevertheless, is not equivalent to the overt c-command requirement which holds of English NPIs. Locality constraints akin to those of overt movement between the operator and the NC terms apply and must be accounted for. Acquaviva proposes that the (empty) operator in the Spec of the NegP must bind and antecedent govern the NC terms. This licensing requirement which must be satisfied at LF, only applies within the clause and requires covert partial movement otherwise.
The government and partial raising analysis is adapted from Mc Daniel (1989) analysis of the German wh-expletive constructions where an A' expletive can license a +Q operator provided that the wh-itself is partially raised to an intermediate CP position.

(60) was glaubst du mit wem Hans gesprochen hat? (1997: 199)
What believe you with whom Hans spoken has
who do you believe that Hans spoke to?

The wh-expletive construction above shows two things. Firstly, the wh-element *mit wem* can be licensed at a distance. In particular, checking of the higher +Q feature is not satisfied by the wh-phrase *mit wem* in the Spec of -Q, but the expletive *was*. Secondly, the relation between the Q feature and the contentive wh element is highly local. The wh-phrase *mit wem* cannot stay in situ.

[28]Acquaviva acknowledges that the structural definition of operator status is not without its problem. He notes, in particular, that wh-phrases undergoing overt movement to a scope position may not be best analysed as operators.

Transferred to the analysis of NC terms dependencies, the empty operator in the Spec of the NegP must not just bind but also locally antecedent govern the negative at LF. In order to fulfill this locality requirement an NC term which is too distant at S-structure must raise at LF to a position in which it can be locally antecedent governed by the empty operator in the Spec of the NegP namely the embedded Spec CP. The subject/object asymmetry of intra-sentential NC dependencies now follows:

(61) a. non pretendo che la polizia arresti nessuno
I don't require that the police arrest anybody
b. *non pretendo che nessuno sia arrestato
I don't require that nobody be arrested (1997:255)

In (61) the NC term in the embedded clause fails to be antecedent governed and, as result, raises to the Spec of the lower CP to be bound and antecedent governed at LF by the matrix operator in the Spec of the NegP. However, unlike the object trace, the embedded subject trace is not head governed in violation of the ECP. The sentential scope reading of NC terms inside certain reason adverbials is also accounted for by partial movement and dynamic binding:

(62) Gianni non si e opposto per nessuna ragione
Gianni [neg] objected for no reason

The C^0 which is not selected (eg adjunct CPs) can inherit a neg feature from a raised NC term to its Spec, the NegP can in turn antecedent/head govern the [neg]CP.
However, NC dependencies are not only local relations but are subject to the tense island condition which the antecedent government requirement cannot account for despite the fact that the contrast between (63a) and (63b) is as significant as the subject/object asymmetry found in subjunctive clauses:

(63) a. non ho deciso di fare niente
I have not decided to do anything
b. *non ho deciso che fare niente
I have not decided that I'll do anything

(Acquaviva 1997 252, from Zanuttini 1991 (256))TIC[29])

In (63b), nothing should prevent the NC term inside the embedded tensed clause from raising to the Spec of the CP.

3.4.1.2. Subjects

We have seen that NPIs must be c-commanded in the overt syntax by negation. Subject NC terms, on the other hand, do not have to satisfy this constraint:

(64) a.*anyone hasn't seen John (Adapted from Ladusaw's 1992)
b. no one hasn't seen John

In order to explain (64) Acquaviva proposes that NC dependencies are scope taking dependencies. Taking the case of universal quantification, the universal quantifier in subject position in (65) can be interpreted with narrow or wide scope over sentence negation:

(65) every student didn't talk
a. not all student talked
b. none of the students talked

Subject indefinites also have this property:

(66) a train didn't arrive for two hours
(Acquaviva 1997:88 from Ladusaw 1992)

(66) above strongly favours a narrow scope reading of the subject indefinite, where the inverse scope relation can be captured by Aoun's and Li's (1989) trace c-command principle:

(67) A quantifier A has scope over a quantifier B in case A c-commands a member of the chain containing B

[29] Tense is an island for extraction.

Turning to NC terms, Acquaviva proposes "that negative indefinites unlike NPIs are assigned scope in the syntactic representation through the usual device that characterizes quantificational structures: an operator chain through which the operator delimits the range of interpretations of the variable" (1997:20). We can say that in (64b) what is relevant is not that the subject is lying *outside* the c-command domain of the NegP, but that it is lying *inside* the scope domain of sentential negation. If we formalise this intuition in terms of the scope principle as proposed by Aoun and Li (1989), then the subject NC term is licensed since its trace, given the VP internal subject hypothesis, is c-commanded by the NegP. The identical semantic representation of NPIs and NC terms as restricted variables may not motivate this claim, but it is easy to see why the distinction must be somehow maintained: NC terms are subject to locality constraints akin to those of strong quantifiers.

To sum up, the trace c-command principle proposed by Aoun and Li (1989) applies and, as a result, subject NC terms above the NegP are licensed. An additional government condition which is relatively local must hold, triggering, in some instances, and in a way that is not dissimilar to the German wh-expletive structures, partial raising of the NC terms. A local government relation requires partial raising which in turn accounts for the ECP effects. The semantics of NC terms as free variables therefore motivates a non movement based analysis of NC dependencies, but paradoxically, without movement, their locality constraints would otherwise remain unaccounted for.

3.4.2. Feature Transfer: (Acquaviva 1997b)

Acquaviva (1997b) also briefly considers a syntactic analysis of the Italian NC dependencies arising in canonical contexts defined as a neg feature transfer driven by FI requirements. Neg feature transfer "does not entail a strictly derivational view of syntax, since it may be understood as an identification procedure between nodes of a phrase marker" (1997:17) and not "a structure building operation transferring a feature to a higher terminal" relation. Basically, a Form Chain operation takes place when there are too many op features in the derivation (or because op features can only be interpreted at a certain level of the derivation). This feature transfer mechanism called "Chain" is largely defined in opposition to another type of dependency called "Dependency": "It is stricter than dependency in that it does not allow forming complex categories like complex operators and each member of the Chain has

a uniform syntactic category"[30]. This means that an intervening categorial distinct element (eg. a negative head) as well as a semantic operator block a Chain.

3.4.3. Restricted Variables and Operators

In Ladusaw's (1992;1996) analysis adopted by Acquaviva (1995) NC terms are restricted variables. Ladusaw however acknowledges that this analysis is not without its problem. If we assume that NC terms are NPIs then it is difficult to pin down what an element like *n't* contributes to meaning as an NPI: " the sense in which it is meaningful to call *not* or *no* a negative polarity item remains to be explored"(1992:247). Acquaviva makes the problem of the characterisation of elements like *no/pas/-n't* more explicit when he remarks that " it would be too strong (besides being suspicious) to claim that these elements, associated with purely formal variables, are ultimately meaningless apart from the expression of the negative connective ¬" (1997: 103). Tentatively, he envisages two solutions. Negative connectives which enter into DN readings are in fact true negative operators. *Pas*, for instance, is a negative connective in the specifier of the NegP. On the other hand, negative connectives undergoing NC are represented as variables with a restriction linked to discourse, or to be precise, " to the speaker's attitude with respect to the propositional content"(1997: 104).

3.5. Deprez (1995)

The issues addressed by Deprez (1995) are identical to the ones identified so far. Her answers nevertheless diverge in essential ways from those of the previous analyses. Deprez makes no reference to the concept of negation either in the semantics or in the syntax. NC terms are semantically characterised as numerals with a 0-cardinality. Structurally, the neg agreement feature analysis of NC terms dependencies in Standard French is given up in favour of QR[31]. QR is itself motivated by the NC terms characterisation as indefinites terms which " can receive two distinct interpretations, a strong (or presuppositional) interpretation and a weak

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[30] "Each terminal has all the features relevant to the interpretation of the chain (17: 1995).

[31] Deprez also proposes that the cross linguistic variations are based on "the nature of the N words (semantic) not on the functional structure of sentences"(1995: 45). I leave this issue aside.

(or cardinal) interpretation" (1995:31); the strong interpretation of the indefinite entailing QR.

3.5.1. QR

Quantifiers can have a wide scope reading. For instance, in (68) under one of the reading, the object universal quantifier *everyone* can take scope over the subject *someone* to be interpreted as "everyone is loved by someone or other":

(68) someone loved everyone

Distinct scope construals like the one above can be differentiated in the syntax by a quantifier raising rule (QR)[32].

Turning to StF NC dependencies, Deprez notes that they are clause bounded. This feature is an obvious property of strong quantifiers and not (weak) indefinites or wh-elements as shown below:

(69) a. *il ne dit que personne viendra
he does not say that anyone will come
b. someone said that everyone would come
*(or each person x there was someone y who said that x would come)
c. who did he say would come?
d. everyone said that a man would come
Gloss: there was a man and all said he would come

Just as quantifier elements of the *everyone*-type cannot take scope over a matrix quantifier from an embedded position in (69b), *personne/rien* cannot be construed with *ne* across a clausal boundary such as IP or CP unlike the (69c) case of overt wh-movement or the (69d) case of the indefinite. Apparent exceptions to the clause-boundedness constraint on

[32]The issue of whether QR is indeed involved to retrieve the wide scope reading in (68) above is an unresolved one (cf. Lappin 1991), but it need not be addressed here since a syntactic mechanism is still required to capture the relationship which exists between the two morphemes which make up the *ne...personne/rien* structure.

personne/rien exists however. With restructuring verbs such as *veut/want* and ECM structures *personne/rien* can have a wide scope reading:

(70) a. il ne veut voir personne
he does not want to see anyone
b. il ne veut rien voir
he does not want to see anything
c. someone wants to visit every city
for each city there exists someone who wants to visit it

(71) a. Il n'a rien entendu crier
He has not heard anything shouted
b. Il n'a entendu crier personne
He has not heard anyone shouting

Every in the subordinate in the (70&71b) examples follows the same pattern and can be interpreted as taking scope over *someone* in the matrix clause. In order to account for (70&71), the clause boundedness effects of QR need not be lifted. In particular, it has been argued that a restructuring verb has the special property of redefining clausal boundaries at a more abstract level of the derivation or at the very least making the clausal boundaries more permeable to intra sentential dependencies. ECM verbs have also been similarly argued to create more permeable environments[33]; allowing, for instance, structural case to be assigned to the subject of the embedded infinitival in (72).

(72) I believe him to be interesting

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Deprez proposes from the observations above that *personne/rien* undergoes QR similarly to strong quantifiers. In other words, Deprez's analysis of the *ne...personne/rien* structure is based on her emphasis of the clause boundedness nature of the StF NC dependencies. The formalisation of QR as a mechanism which configurationally distinguishes different scope construals can take several forms. The checking relation which typically characterises overt

[33] For suggestions that the two might be characterized under a single unified analysis cf. A. Pettiward (1998).

wh-dependencies is one way to capture QR (Beghelli 1995). Rather than being morphologically driven, as in the case of the checking relation, QR can instead be motivated by the semantics. A QP optionally adjoins to the IP to take wide scope (Reinhart 1995). Finally, QR can be reduced to movement to the agreement projections (Hornstein 1995); subsequent erasure of the lower (or higher) copy re-establishing the appropriate c-command configuration between the scope taking elements after Spell-Out. In this sense, QR, unlike A' movement, is not an independently motivated operation, but it is the bi-product of NP movement to AgrS or AgrO triggered by case (or agreement) checking requirements. The Hornstein's style analysis of QR adopted by Deprez retains the spirit of the Minimalist enterprise where overt movement is driven by the morphology. More importantly, for her, the *de* licensing data introduced by Moritz and Valois (1994) is correctly encapsulated by taking *personne/rien* to move to an Agr projection:

(73) a. *de gens n'ont rien dit à personne
any people have not said anything to anyone
b. Line n'a donné de livres à personne
Line has not given any book to anyone

We have seen that NPI licensing as an overt syntax requirement cannot be the explanation since the inverse precedence order obtains in (73b). Covert raising of the object NC term *personne* to a higher agr-o position on the other hand allows the direct object NPI *de livres* to be licensed. Similarly, if *personne* in (73a) raises to the agr-o position, then its LF landing site is structurally lower than the agr-s position occupied by the subject NPI *de gens*. The subject NPI *de gens* not being licensed, the ill-formed derivation in (73) is correctly ruled out. A few technical inconsistencies arise however. If we assume that the preposition assigns structural case (although this is debatable in StF) movement of the indirect object is no longer motivated. Moreover, Deprez argues that leftward *rien* in (74) QRs to the agr_o position:

(74) a. il n'a pu rien faire
he has not been able to do anything
b. il n'a rien pu faire
he has not been able to do anything

Assuming a QR-based approach, the placement of the floating quantifier *rien* should lead to differences in scopal interpretation as argued by Hornstein (1995) for the case of *every*. In other words, the wide scope interpretation available in (74b) should result from *rien* displacement. However, not only (74b), but (74a) receives a wide scope reading. *Rien* overt position therefore does not differentiate between scope readings. To get a narrow scope reading *ne* must in the lower clause as in (75) therefore, as far as interpretive purposes are concerned, it is *ne's* overt position which matters:

(75) il a pu ne rien faire
it is possible that he has not done anything

Besides, although under Hornstein's (1995) analysis of QR as driven by case (or agr) requirement *rien* does not have multiple Agr-o positions to choose from[34], in (76), but contrary to expectations, *rien* occupies two distinct landing sites[35]:

(76) a. il n' a rien pu faire
he has not been able to do anything
b. ?il n' a pu rien faire (same interpretation a bit deviant)
he has not been able to do anything
c. il a pu ne rien faire
it is possible that he has not done anything

3.5.2. *Personne/rien* as 0-Numerals

The structural analysis of the *ne...personne/rien* construction given above is motivated by the characterisation of *personne/rien* as numerals with quantificational force. This hypothesis is based on the evidence that weak quantifiers may have a strong reading. For instance, a

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[34]Unless we are prepared to assume a structure similar to the small clause structure with one case position, but multiple agreement projections.

[35]In fact, the movement of the bare quantifier *rien* in (76) may not be motivated at all if analysed similarly to floating quantifiers which are not normally thought as DPs (they don't have case features) hence the stranding of *all* (p.c. Simpson):
(i) The boys have all gone

numeral term can have two interpretations in (77) where the partitive interpretation of the numeral corresponds to a strong reading:

(77) a. two books are on the table

b. two (of these) books are on the table

Deprez also proposes that by analysing *personne/rien* as numerals, 0-numerals to be precise, the following interpretation can be derived compositionally by applying resumptive quantification:

(78) personne n'a rien vu

no one has seen anything

As argued by May (1989), a resumptive quantifier can only be derived from identical quantifiers. For instance, two existential or universal quantifiers, but not a combination of both. Numerals can undergo resumptive quantification and, similar to the $\exists_{ij}$ or $\forall_{ij}$ resumptive quantifiers, the resumptive numeral quantifier interpretation is equivalent to its unary interpretations. This is important since we want to be able to assign an interpretation to each lexical item and derive from them the overall meaning of the sentence. Applied to the denotation of *personne/rien*, the NC reading of (78) is represented in logical notation as:

zero <x, y> (person x) (thing y) (x saw y)

which can be read as " there were 0-pairs of people and things in the seeing relation". In other words, according to Deprez, " here no double negation occurs but the total count simply amounts to zero" (1995: 37). In other words, "there is no need to ever consider French n-words as intrinsically (ie. semantically negative)" (1995:42). Instead it is "only a relation between a negative operator and a term (or between two terms) which may appear morphologically negative or semantically very close to negation (cf. the meaning of *zero*) but on closer inspection never turn out to contain a true semantic negation" (1995:43). On the other hand, the interpretation of (79) is derived as follows:

(79) pas une personne n'a rien fait

a. not one personne hasn't done anything

b. everyone has done something or other

Pas, analysed as a negative connective negates the empty set denoted by *personne* entailing that the cardinality of the set of persons must be distinct from 0[36]. To put it differently, (80a)'s interpretation is identical to (80b)'s.

(80) a. je n'ai pas vu personne
I didn't see no-one
b. je n'ai pas vu zéro personne
I didn't see zero persons

At first view, the appropriate interpretations for (78) and (79) are correctly derived under the principle of compositionality. The a-priori logical equivalence between null sets and null sets intersection implicit in Deprez's characterisation of *personne/rien* as 0-numerals however does not hold in all contexts. In particular, under the cardinal interpretation, we get the wrong entailments relations (the reverse entailment relations):

(81) aucun pere ne marche⇒ aucun homme ne marche
no father walks⇒ no man walks
0-homme marche⇒ 0-pere marche
0-man walks⇒ 0-father walks

Furthermore, Deprez argues that *personne/rien* cannot license certain NPIs because they are 0-numerals:

(82) a. je n'ai pas vu un chat
I have not seen anyone
b. *personne n'a vu un chat
no one have not seen anyone
(83) a. j'ai pas un rond
I don't have a red cent
b. ??personne n'a un rond

[36]The absence of resumptive quantification in (79) results from the absence of a strict identity between the operators.

no one has a red cent

(84) a. je n'ai pas compris du tout

I did not understand anything

b. *personne n'a compris du tout

no one did not understand anything

However, the denotation of NC terms as 0-cardinals only show that they are not monotone decreasing on their left argument, whereas the (b) examples show that they do not possess the stronger property of anti-additivity (cf. Szabolsci and Zwarts 1990). In fact, the ill-formedness of the (b) examples does not appear to be caused by the absence of a DEE, as a more careful choice of NC term seems to indicate[37]:

(85) a. il n'y a jamais un chat ici

there never is anyone here

b. il n'a jamais un rond

he never has a red cent

c. je n'ai rien compris du tout

I did not understand anything at all

Describing NC terms as 0-numerals means that they are monotone decreasing on their right argument. In other words, a NC word should license an NPI in precisely the contexts where it is not licensed by *every*:

(86) everyman who had ever read anything about phrenology attended the

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[37] The contrast appears to also hold of the American English expression " a red cent":

(i) a. I don't have a red cent

b. ??nobody has a red cent

As pointed out to me (b) is much better if the NC term has a forced partitive interpretation (pc. Simpson) and the French examples seem to follow suit:

(ii) no one among us has a red cent

personne d'entre nous n'a un rond

(ii) also shows that monotonicity cannot be invoked to account for the contrast between (ia) and (ib).

lecture

*everyman who attended the lecture had ever read anything about phrenology (Ladusaw 1989)

This again seems dubious:

(87) aucun de ceux qui avait lu quoique ce soit n'était present à l'inauguration[38]
aucun de ceux qui était present à l'inauguration n'avait lu quoique ce soit

4. Neg Feature Raising

The analysis of NC dependencies I propose follows essentially Ladusaw's (1992; 1996b) analysis of NC terms as variables bound by an abstract negative operator. In the syntax, a neg feature agreement expresses the relation between the locus of sentence negation and the morphologically negative elements. The morphologically driven covert raising of negative features (cf. Acquaviva's 1997b feature transfer analysis) captures the locality constraints displayed by NC dependencies. The semantics of NC is thus divorced from its syntax. Let us first look at what NC dependencies cannot be described as.

4.1. Covert A'-movement of Categories

In Zanuttini's and Haegeman's (1992) NC dependencies are modeled alongside overt wh-movement. We have seen that the Neg Criterion requires that two **categories**, each specified for a neg feature, should be in a Spec-Head relation in the NegP.
A naive view would be to say that NC terms do not move given the contrast in StF between the non subject cases:

(89) a. il ne voit personne
he doesn't see anyone

[38]The contrast in grammaticalness if it exists may be linked to *ne* 's position:
(i) je n'ai rencontré aucun étudiant qui puisse comprendre quoi que ce soit
I never met any student who can understand anything

b. que mange-t-il?

what does he eat?

In the case of a direct question, the wh-phrase and the verb are in the Spec-Head relation at Spell-Out as indicated by the sentence initial position of the wh-object and subject clitic inversion. On the other hand, in NC dependencies, the NC term *personne* does not precede the head element *ne* instead it occupies the canonical object position[39]. The Neg Criterion can however be taken as the covert equivalent of the Wh-Criterion. The analogy between the Neg Criterion and the Wh-Criterion which captures overt wh-movement, is therefore an indirect one. It is primarily based on the NC term quantificational status, the strong islands effects exhibited by NC dependencies, and, in the case of StF, the blocking effects of *pas* as well as the *de* licensing effects (Moritz and Valois 1994). But counter-arguments can be provided against these claims.

Firstly, covert movement in the syntax of strong quantifiers, assuming that NC terms are indeed strong quantifiers[40], to establish a first order tripartite structure of quantification does not have to be maintained if the claim that natural languages meaning cannot be characterized with a first order logic of quantification is true. With a higher order logic, NPs are second degree functions which apply to the predicate allowing in situ function application. A higher order logic thus removes the need for compulsory movement (Lappin 1991).

Secondly, like overt wh-movement, NC dependencies are also sensitive to strong islands (the sentential subject, adjunct islands are illustrated below):

(90) a. *engager personne n'est permis

hiring no one is permitted

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[39] I set aside the case of *rien* in (i):

(i) il n'a rien mangé

he has eaten nothing

(ii) *il a la pomme mangé

he has eaten the apple

[40]*Personne/rien* "can have a negative meaning when they occur as isolated answers to a question" (Deprez 1995:23) and can be modified by *presque/almost*:

(i) qui est venu?-personne

who has come? -no one

(ii) presque personne n'est venu

almost no one has come

b. *qui engager est-il permis?
who to hire is permitted?

NC terms inside a DP subject are similarly ruled out:

(91) a. *le frère de personne n'a mangé
nobody's brother ate
b. *de qui le frère t a-t-il mangé?
whose brother has eaten?

(92) a. *Pierre ne souhaite que Mark parte avant d'engager personne
Pierre doesn't wish that Mark leaves before hiring anyone
b. *Qui Pierre souhaite-t-il que Mark parte avant d'engager t ?
Who does Pierre wish that Mark leaves before hiring t?

(93) a. *Fred ne desire rester en ville pour aider personne
Fred doesn't want to stay in town to help anybody
b. *qui Fred desire-t-il rester en ville pour aider ?
Who does Fred doesn't want to stay in town to help ?

However, as pointed out by Deprez, the same locality constraints apply to French NPIs which, under standard treatments, do not receive a movement analysis (cf. Ladusaw 1979) indicating that strong islands are not a diagnostic for movement (cf. Also Moritz and Valois (1994) reviewed in chapter 1).

(94) a. *inviter qui que ce soit n'a pas été facile (Deprez 24:1995)
to invite anyone has not been easy
b. *Fred desire ne pas rester en ville pour aider qui que ce soit
Fred doesn't wish to stay in town to help anyone

Thirdly, Moritz and Valois (1994) argue that the ill-formedness (or DN reading) in (95) of the derivation is explained in terms of a Neg Criterion violation. The NC term *personne* specified for an neg feature cannot raise to the Spec of the CP because the position is already occupied by *pas*.

(95) *Jean n'a pas vu personne
Jean has not seen anyone

Deprez (1995) however points out that Louisiana French Creole and Québécois French "demonstrate that the syntactic status of negation cannot be taken as the relevant factor which determines its ability to license or block NC" (1995:16). *Pa/pas* in (96a) and (96b), although independently shown to be specifiers like StF *pas,* are needed to license sentence negation.

(96) a. j'ai pas vu parsonne
b. mo te pa wa pe(r)son
I did not see anyone

Moreover, given the analogy with wh-dependencies if *pas* and *personne* have the same syntactic status, then they should lead to quantifier absorption (May 1989) as in the wh-case in (97):

(97) who saw what (1995:16)
(98) a. *I wonder if John saw which man? (1995:17)
b. *I wonder whether John saw which man

In wh-questions, however, it is the Q head in (98) which blocks wh-dependencies rather than the other way round (97).
Fourthly, as discussed in chapter 1, if *personne* moves covertly to the NegP enabling the NPI *de* to be licensed then the data below can be accounted for:

(99) a. Lucie ne donne de receptions pour personne
Lucie does not throw any parties for anybody
b. *d'articles n'ont été donnés à personne
any articles were given to nobody

Covert NPI licensing however means that French NPIs are not subject to the overt c-command requirement (Ladusaw 1979); a problematic assumption. On the other hand, if *ne*

is a NPI licensor in (99)[41], the overt c-command condition with no reference to movement can be retained.

Finally, even if NC dependencies as discussed below, display locality constraint of the movement-type dependencies, the MP states that the target feature only attracts features. A category "moves" along with its feature (ie. pied-pipes) only if some external constraints such as the principle of FI at the A-P interface must be satisfied. In the covert component, A-P requirements however are always vacuously satisfied. As a consequence, in the covert component only features, not categories raise. In other words, pied-piping is strictly PF oriented[42]. Moreover, the checking operation is driven by the target feature which deletes once the checking configuration is established. Consequently, multiple covert (feature) raising is not expected either. Under the MP assumptions, NC dependencies by definition cannot involve (multiple) covert movement of categories.

To sum up, covert movement of quantified expressions as motivated by the semantics has been questioned, strong islands do not always mean that a movement based analysis is required, and covert wh-movement of categories is not theoretically motivated in the MP. The blocking effects triggered by the movement of categories are also dubious if we assume as in the MP that movement creates a structure of adjunction. Let us now consider a non-movement based analysis.

4.2. Binding Analyses

Progovac (1995) and Acquaviva (1997) have both investigated non movement based analyses although Acquaviva reviewed above ultimately relies on partial movement.

In Progovac (1995) NC dependencies are similar to anaphoric dependencies. An appropriate

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[41]However, if at all involved *ne* should not be taken to license NPIs single handedly in the light of (i) below:

(i) a. Lucie n'a donné de/?des livres à personne
Lucie has not given some/any book to anyone
b. Lucie n'a donné des/?de livres qu' à Nicole
Lucie has only given some/any book to Nicole

[42] Brody (1995) argues that a PF oriented view of pied-piping does not account for preposition stranding which is an option in English.

(i) with whom did you go to the cinema?
(ii) whom did you go to the cinema with?

antecedent must bind the NC term. The appropriate antecedents for NC terms however are not lexical categories, but the functional Neg^0 and C^0 categories which must bind the NC term inside its governing category (GC).

Chomsky (1995) makes a similar proposal for wh-dependencies. The wh-criterion reformulated in terms of feature attraction where interpretable vs -interpretable and strong vs weak features are distinguished means that, of those features, only strong features (always uninterpretable) and (weak) uninterpretable features give rise to movement. In the case of the wh-in-situ construction, Chomsky proposes that the +Q feature on the target C^0 is interpretable and like other interpretable features, never attracts. Wh-in-situ dependencies are therefore captured under the binding relation. Although a binding analysis might be envisaged for wh-in situ dependencies, it does not follow that NC dependencies should receive the same treatment. In contrast with the standard wh-in situ and NPIs dependencies, NC dependencies are not immune to wh-islands; a usual diagnostic for movement:

(100) a. *je ne me suis demandé comment rencontrer personne

b. je ne me suis pas demandé comment rencontrer qui que ce soit

c. Mali xiang-zhidao Yuehan weishenme da-le shei

Mary wonder john why beat-Asp who

Interpreted as: who does Mary wonder why John hit?

Another difference with wh-in situ dependencies is that NC dependencies are subject to the clause boundedness constraint. Although Progovac's binding analysis resolves the clause boundedness constraint as a principle A violation, defining the type of binder involved is lot harder. Is there a non overt binder somewhere and, if so, of which type? Progovac, essentially following Laka (1990), proposes that FPs specified for a neg feature constitute such binders. We have seen however that the abstract NegP does not express sentence negation and an overt NC element needs to identify it (Ladusaw 1992;1996). This strongly suggests that one of the NC terms has a separate status from the other anaphoric (NC) terms which enter a binding relation with the NegP. This is essentially what Laka argues. The binding and checking operations together capture the relationship between the NC terms and the NegP (in the general case, the neg feature which a functional projection is specified for). We have seen that this is essentially what is proposed in the case of wh-dependencies. In the Minimalist framework however the binding and checking operations distinguish the overt wh-

movement cases from the wh-in-situ cases; reflecting in particular the fact that in-situ wh-phrases unlike fronted wh-phrases are not sensitive to weak islands and that the moved wh-phrases have a operator status which is not shared by the in-situ wh-phrases analysed as restricted variables. Laka's (1990) mixed n-word account however does not make such a claim: all n-words (NC terms) are subject to the same island constraints and uniformly analysed as restricted variables. A uniform licensing process should therefore be presumably involved[43]/[44].

As an alternative, Acquaviva suggests that the binding relation between the NegP and the subject negative phrase is subject to Aoun and Li (1989) trace c-command principle. However, as pointed out by Benmamoun (1997), if the trace is what is relevant then the NC term inside a subject DP should be licensed similarly to one inside an object DP, but we have seen that like overt wh-movement NC dependencies are subject to the left branch condition. Consider in particular (101):

(101) a. je n'ai vu la photo de personne
I saw no one's photo
b. *la photo de personne n'est sur la table
no one photo's is on the table

In fact, Acquaviva ultimately resorts to (partial) movement of the neg phrases. Partial movement in his analysis captures another locality constraint attributed to movement dependencies: the ECP effects. For instance, in (102) *personne* in the subject position cannot be construed with the matrix negation given the ECP (Kayne 1989):

(102) a. je n'ai exigé qu'ils arretent personne
I have not required that they arrest anyone
b. *je n'ai exigé que personne soit arreté

---

[43]In fact Laka (1990) reverts to a covert LF movement analysis.

[44] Cf. Also Benmamoun (1997) who points out that in Moroccan Arabic the "NPI *hetta*+NP "any NP" must either c-commanded by or in overt Spec-head agreement with the negative head *ma* "not" within the same clause"and proposes to "explore hypotheses that dispense with this disjunction, such as M-command or Spec-head agreement plus LF movement".

I have not required that anyone be arrested

4.3. Covert Feature Movement

To conclude this section, I propose to provide motivations for a neg feature raising analysis similar to Acquaviva's (1997b) feature transfer proposal. I also discuss the modifications that I suggest should be made to the feature transfer analysis' outline given in Acquaviva (1997).

4.3.1. Neg Feature Raising

I propose an analysis of NC dependencies in terms of neg feature movement which is clearly divorced from its semantics, but is consistent with the lexical semantic characterization of NC terms as (restricted) variables[45] bound by an abstract existentially negated operator[46]/[47] .
The neg feature analysis's aim is to explain locality constraints such as the left branch condition, the wh-islands and the ECP effects, displayed by NC dependencies which are the hallmark not of binding dependencies, but of movement dependencies.
The covert feature raising analysis proposed here is also compatible with the observation that NC terms do not undergo overt movement and with the minimalist assumptions, as, in the MP, it is the covert movement of categories rather than movement itself which is problematic. In particular, checking theory requires that a weak uninterpretable feature F on the target T should be in Head-Head relation with another similar feature F on a lexical item (LI) in the covert component. The relevant checking configuration is achieved by moving F after Spell-Out. However, I depart somehow from Chomsky's (1995) distinction between interpretable vs un-interpretable features where only non interpretable features undergo

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[45] The specification of *pas* and *no/non/n't* lexical semantics will be set aside as a question for further research outside the scope of this thesis. In chapter 3, I argue that expletive negatives (eg. *ne*) must be distinguished from NC terms (ie restricted variables).

[46]I reject the hypothesis that the syntax is specified for an empty neg operator. This has been shown to be incompatible with the structure of StF sentence negation and more generally with the hypothesis that expressing sentence negation is subject to syntactic conditions obtaining in the overt syntax.

[47] I propose in section 5 (Ladusaw 1992;1996), that the abstract operator can only be instantiated by an overt syntax checking configuration between the abstract target neg feature and a lexical element carrying a similar feature.

movement after Spell-Out. I assume here that neg features which are interpretable features covertly raise. Nevertheless, it is important to note that interpretable features are not semantic features, but formal features. More precisely, neg features are interpretive features in the sense that are ultimately related to a semantic concept such as negation (instead of case), but they are also formal features in the sense that do not have any negative meaning in themselves; the negative operator being an abstract operator invisible to the syntax. The analysis of neg features as primarily formal features is also compatible with the view that neg feature movement is driven by the morphology. The analysis I am adopting here is thus clearly distinct from Acquaviva's (1997b) analysis where the Form chain operation is driven by FI. Acquaviva proposes that the Form Chain operation between LIs specified for an op feature is driven by FI on the basis that "they are too many interpretable op features". However, in my view, the interpretability status of op features fits uneasily with the semantic notion of interpretability in terms of denotations. An LI specified for an op feature bears no one to one correspondence to the notion of semantic operator instead it is only indirectly related to the notion of semantic operator by being part of a more complex object called Chain. To put it differently, an LI specified for an op feature is not interpreted as an operator since several LIs each carrying an op feature are interpreted as a single semantic operator[48]. I therefore proposes that it is best to view negative features as primarily formal features which move as a result of a morphological requirement and not FI.

In the next section, I explore that hypothesis that the neg feature raising analysis proposed here may provide an answer to the clause-bounded nature of the NC dependencies to which the solutions offered so far include QR and the TIC filter.

4.3.2. Tense Islands: An Intricate Problem

We have seen that NC dependencies are **clause bounded** similarly to the QR operation proposed to account for the wide scope readings of quantified NPs. However, in section 3.5.1 I have shown that the overt leftward movement of *rien* does not tell us anything about

[48]It is obviously possible to envisage that Chain is an interpretable object which is not equal to the sum of OPs individual contribution to interpretation if one is prepared to drop the PC as a working assumption. This is not the view taken by Acquaviva (1997b) where Op elements can be distinguished from op features in the sense that they cannot enter into the Chain relation or if they do they form complex OP structures subject to absorption.

possible scope construals. (76) reproduced below indicates that it is *ne*'s placement which disambiguates scopal interpretation, not the leftward moved *rien* [49]:

(76) a. il n'a rien pu faire
he has not been able to do anything
b. ?il n'a pu rien faire (same interpretation a bit deviant)
he has not been able to do anything
c. il a pu ne rien faire
it is possible that he has not done anything

In fact, some wh-in situ languages also display TIC effects. For instance, taking the case of Iraqi Arabic a wh-phrase may remain in situ or wh-move overtly in non tensed clauses as illustrated below[50]:

(103) a. hawlat Mona tištiri šeno? (1996: 679)
tried Mona bought what
b. šeno hawlat Mona tištiri?
what tried Mona bought
what did Mona try to buy?

However, when the clause is tensed the wh-phrase must overtly move as indicated by its ill-formed in situ equivalent in (104a):

(104) a. *tsawwarat Mona Ali ištara šeno? (1996:678)
thought Mona Ali bought what
b. šeno tsawwarat Mona Ali ištara?
what thought Mona Ali bought

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[49] The syntactic representation of quantifier scope, whichever way one wants to formalise it, has itself been questioned and, in some cases replaced by a mechanism of quantifier storage and release (Cooper (1985) and Lappin (1991) for a review).

[50] The data is from Ouhalla (1996). Simpson (1998) also makes similar observations.

what did Mona though Ali bought?

Interestingly, the wh-in-situ derivations in these languages are sensitive to wh-islands (110a) similarly to their overt equivalents (105b):

(105) a. *nasat Mona li-meno tinti šeno? (1996:677)
forgot Mona to whom to give what
b. ??šeno nasat Mona li-meno tinti?
what forgot Mona to whom to give ?

The wh-island effects in (105a) therefore indicate that movement of some kind is involved in the Iraqi Arabic so called in situ wh-dependencies. However, we do not want to say that QR is involved in this case, nor in the case of the wh-effects in English which are much worse if the (D-linked) wh-phrase is extracted out of a tensed clause:

(106) a. ??which book did John ask whether she read?
b. which book did John ask whether to read?

Another option which has been pursued is relying on a filter such as Zanuttini's (1990) Tense Island Condition as formulated below (1990:256):

(107) *non* cannot be construed with *nessuno/niente* across a tensed IP

The tense effects the *ne...personne/rien* construction are therefore subsumed under (107). Deprez however points out that although Italian NC dependencies might indeed be correctly characterised under the TIC, the TIC still does not account for the absence of a construal of *personne/rien* with *ne* across non ECM infinitivals, the negative interpretation of the embedded NC term in the (108b&109b) also indicating that it cannot be construed with a matrix NC term[51]:

[51] In fact, I disagree with Deprez's interpretation of the data. To me, the (107&108b) examples are ambiguous between a DN and NC reading where the DN reading might be due to focussing effects linked to the symmetrical structures. In particular, I similarly get a DN reading for (ia)

(108) a. *je n'ai rien regretté de voir
I have not regretted anything
b. personne n'a regretté d'avoir rien mange
no one has regretted to have eating nothing

(109) a. *je ne savais avoir invité personne
I was not aware having invited anyone
b. personne n'a demandé à Marie de rien manger
no one had asked Marie to eat nothing

Setting aside the case of (108a&109a)[52], the (108b&109b) examples are nevertheless puzzling if we take into consideration (110):

(110) a. ne rien manger
b. *rien manger
not eating anything

(110) shows that an NC term which has sentential scope in a non tensed clause must combine with *ne* in order to express negation. The fact that this requirement is somehow lifted in the (108b&109b) examples only follows if we analyse *personne/rien* as construed with the matrix NC terms.

Moreover, the TIC, despite its purely stipulative flavour, can also be independently used to capture the contrasts in well-formedness which arise in English when a wh-phrase overtly moves across a wh-island (106). Another alternative that one may want to investigate is to what extent feature movement where features are head categories, explains Tense, a head element, as an island for extraction, although, and evidently so, feature movement cannot be reduced to head movement. I set this issue aside for further research, and propose to turn next to the overt syntax of NC dependencies.

(i) a. personne n'a rien mangé
no one has eaten nothing
b. personne n'a rien demandé à Marie
no one has asked nothing to Marie

[52]Discussed in chapter 3, section 5.

5. The Overt Syntax of NC Dependencies

5.1. The Case of Italian, Spanish, Catalan

We have seen that sentence negation in StF is always expressed by a structural complex. However, not all Romance languages (eg. Italian Spanish etc.) display this property. Focusing in particular on Italian, Spanish and Catalan, sentence negation in these Romance languages is instead expressed by a single element, *non* in Italian, *no* in Spanish and Catalan.

(111) a. non ho parlato — Italian
I did not talk

b. no hable — Spanish
I did not talk

c. en Pere no veu la Maria — Catalan
the Peter does not see Maria

Moreover, in Italian, Spanish and Catalan, we note the following pre/post verbal asymmetry in the structural realisation of sentence negation.

Spanish

(112) a. *(no) vivimos a nadie
we saw no one

b. nadie (*no) comio
no one came

Italian

(113) a. Mario *(non) ha visto nessuno
Mario saw no one

b. nessuno (*non) ha visto Mario
no one has seen Mario

Catalan

(114) a. no m'ha telefonat ningu
no one has phoned me

b. ningu ha vist en Joan
no one has seen Joan

In the (a) examples a post verbal position must combine with the negative connective *non* (Italian), *no* (Spanish and Catalan), whereas in the (b) examples the NC term in preverbal position is free standing.

In other words, the Italian, Spanish and Catalan negative marker *non/no/no* does not behave like the StF *ne*. Firstly, *non/no/no* can express sentence negation on its own unlike *ne*, and, secondly, *non/no/no* is not always (whereas *ne* is) required when expressing a negative statement with sentential scope.

We have seen that it is generally assumed that the expression of sentence negation involves a structural position above the VP represented either as a feature neg or as an independent projection, the NegP. This abstract requirement however does not explain the variations that occurs in the overt realisation of sentence negation across Romance languages. I propose to ask next and with reference to Haegeman's (1995) and Ladusaw's (1992;1996) analyses in which way the overt distribution of neg markers can be accounted for in these languages. Namely, in Romance languages sentence negation must generally, but not always be expressed by a two parts negation.

5.2. Italian Negation and Haegeman's (1995) Neg Criterion

Zanuttini's (1990), Haegeman's and Zanuttini's (1992) working hypothesis states that in order to express sentence negation a Spec-Head configuration must be established between two negative constituents at some level of the representation. For instance, the constituents of negation *pas* and *ne* in (115a) are said to be in a Spec-Head relation in the covert component.

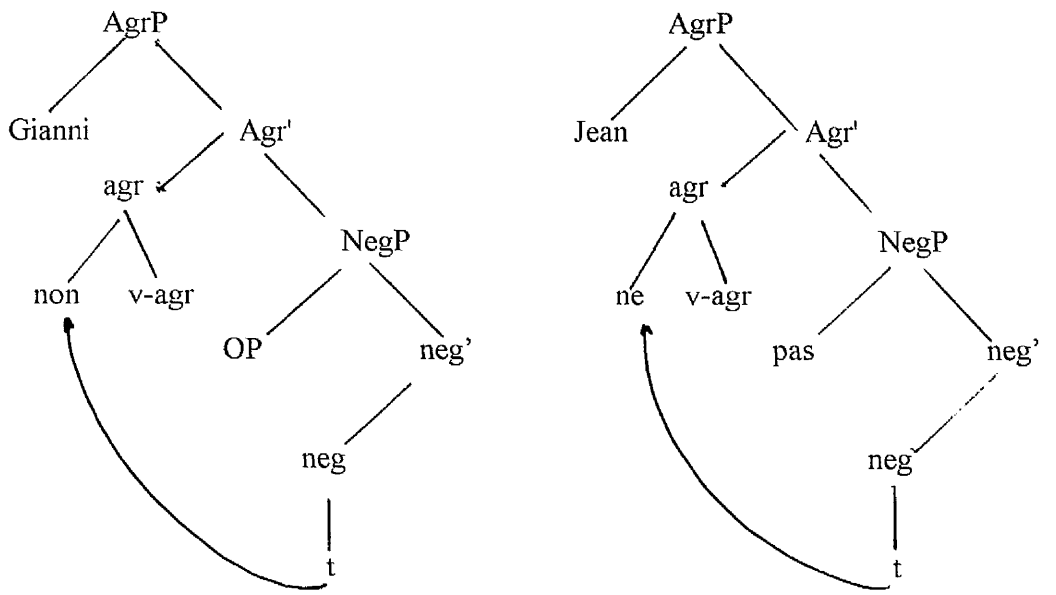
(115) a. je n'aime pas les fruits
I do not like fruit
b. *je n'aime les fruits
I do not like fruit
c. *j'aime pas les fruits
I do not like fruit

However, we have seen that the overt realisation of sentence negation is subject to cross linguistic variation. In particular, sentence negation in Italian is expressed by the simplex *non*.

(116) a. non ho parlato
I did not talk

In order to insure that the Neg Criterion holds universally and not solely in the case of StF sentence negation, Zanuttini (1990), Haegeman and Zanuttini (1992) and Haegeman (1995) rely on empty categories. Taking the case of Italian, the element that enters a Spec-Head relation with the head *non* is the non overt counterpart of *pas*. The underlying configurations for sentence negation in Italian and Standard French are therefore matching each other.

(117)



Whether sentence negation in a given language has a non overt negative marker is either explained in terms of the morphology (ie. StF has an overt OP and Italian hasn't), or it is made dependent on the conditions of identification of non overt categories which, in Haegeman's (1995), remain largely unspecified. It is possible to envisage, as suggested by Acquaviva (1995), that the alternation between overt and non-overt categories is derived from an A-P (Articulatory-Phonetic) requirement on the conditions of the proper identification of negative chains. In other words, the Standard French *ne...pas* structure and the Italian sentence negation structure are essentially the same at the C-I interface, but A-P requires that two overt elements should be realised in Standard French to insure the

identification of the negative chain whereas one overt category is sufficient in Italian. Syntactic chains however are not objects which the phonological component has access to. It is therefore difficult to envisage that the condition that governs their identification lies with the phonology. In other words, if identification of chains is involved it must be syntax-based. I return to this topic in chapter 3 where I propose that the variations found in the expression of sentence negation in Italian and Standard French are in fact due to the expletive vs contentive element distinction which becomes significant at the interface with the C-I system. Haegeman (1995) also argues that the Neg Criterion uniformly holds at S-structure. Again, the variations that exist in the overt realisation of sentence negation must be accounted for. For instance, in Italian, there are three cases to consider:

Italian

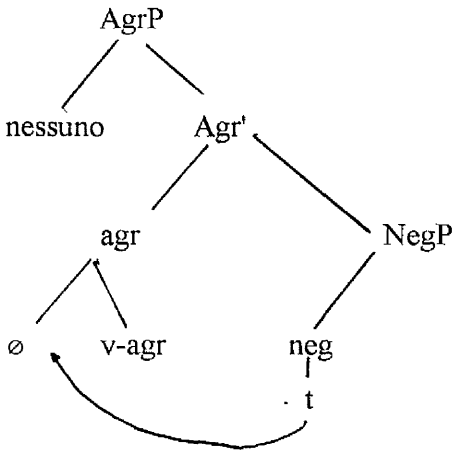
(118) a. Gianni non ha telefonato a sua madre
Gianni has not phoned his mother

b. Mario non ha visto nessuno
Mario saw no one

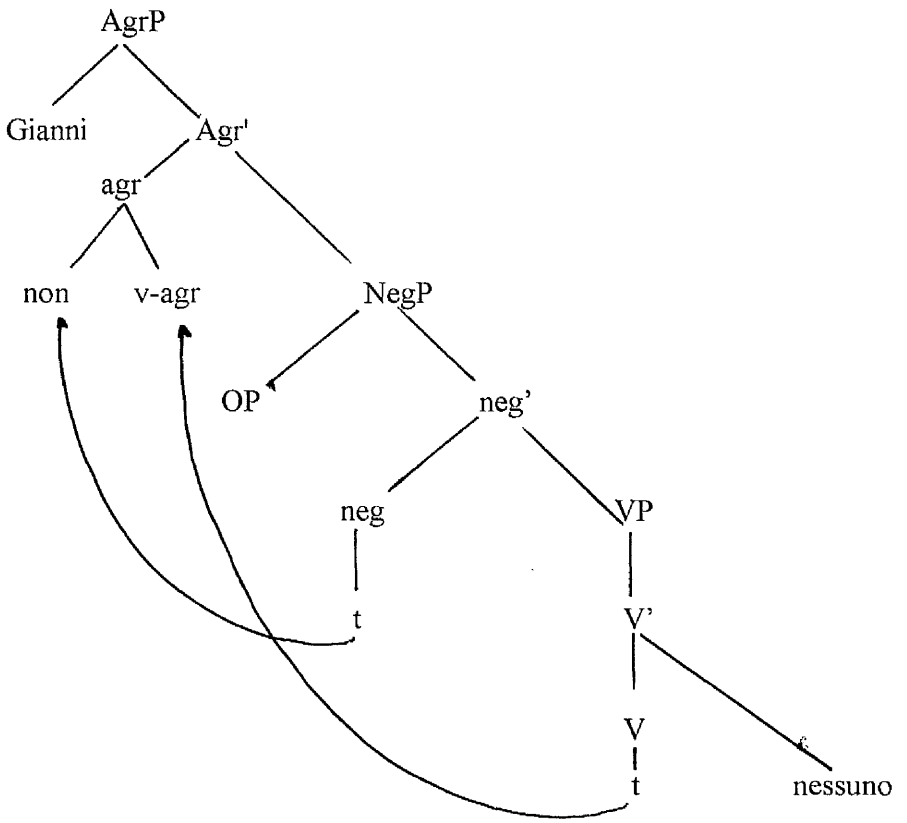
c. nessuno ha visto Mario
no one has seen Mario

(118a) illustrates the case where sentence negation is expressed by the element *non* alone. In (118b) the negative object case, *non* as well as the negative object is always overtly realised yielding the complex *non...niente*. The negative subject structure in (118c) shows that the subject *nessuno* does not combine with the element *non*. In order to reduce these variations to the satisfaction of the same S-structure requirement, Haegeman (1995) relies on the concept of chains as introduced by Brody (1995). Setting aside the case of sentence negation in (118a) discussed above, the negative subject/object paradigm is analysed as follows. In the negative object case, the negative object element does not occupy the specifier of the NegP at S-level. Instead, an expletive-operator sitting in the specifier of the NegP enters into a Spec-Head relation with *non*. The overt negative element in the object position therefore satisfies the Neg Criterion indirectly via the non trivial chain <OP-nessuno> it forms with the expletive operator in the specifier of the NegP. In the subject case, it is the negative element *nessuno* which occupies the specifier position and enters a Spec-Head relation with the head of the NegP; an empty operator. The underlying structures for the object/subject negative terms are given below:

(119)



(120)



To sum up, in order to satisfy the Neg Criterion at S-structure a Spec-Head agreement relation must hold between the head of the NegP and the head of a negative chain which can either be a covert expletive-operator (OP) or an overt category *(nessuno)*. However, the two types of chains involved <nessuno, OP> and <OP, nessuno> correspond precisely to the overt/covert movement distinction (Brody 1995). In particular, although Brody rejects the hypothesis that different principles apply at different levels of the derivation thus removing the need to posit different levels of derivation, he still maintains the distinction between

overt/covert movement. This distinction instead is recast in terms of contentive-expletive/expletive-contentive chains (Brody 1995). Haegeman therefore reintroduces by the back door the problematic assumption that the Neg Criterion can be satisfied at "different levels of the derivation"[53]. However, Ladusaw's (1992) analysis to which I turn now, does not suffer the same drawback.

5.3. Ladusaw (1992): The Neg Criterion Revisited

Ladusaw (1992) proposes that in the syntax none of the NC terms express sentence negation nor are they being licensed by an invisible negative operator. Instead, it is a combination of both factors which licenses sentence negation. A NC term lexically specified for morpho-syntactic feature neg licenses sentence negation when it enters into a specified relation with a similar neg feature on a functional projection c-commanding the VP [54].

The proposal can be made more concrete as follows. Italian is a NC language in the sense that it must meet a specific structural requirement in order to express sentence negation. More precisely, in order to express sentence negation a NC term should be c-commanding the VP in the overt syntax. This position can be more precisely identified as corresponding to the NegP. Failing that the sentence becomes ill-formed. For instance, (121) is said to be ill-formed because the object NC term *niente* is not in a c-commanding position over the VP.

(121) *Giacomo fa niente
Giacomo does nothing

Other NC languages include Romance Spanish and Catalan as well as NC dialects of English:

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[53]Deprez (1995) proposes to derive the Italian no + NC term vs NC term subject contrast by analysing the subject NC term as a 0-numeral similarly to Standard French and the object NC term as a variable bound by a negative operator similarly to Haitian negation. Ie Complex negation is like weak indefinites and non complex negation like weak indefinites with a strong reading. I won't discuss the proposal since dropping a semantic notion of negation seems a highly dubious move to me.

[54] There is "only one node at which the neg feature is semantically potent". It is "feature neg in the clause category which expresses negation not the syntactic category which licenses its instantiation". In HPSG: "its occurrence on a category guarantees its occurrence recursively on every projection and head of that category" (Ladusaw 1996).

(122) a. *en Pere ha fet res (Ladusaw 1992)

EN Peter has done nothing

Peter has done nothing

b. *Pedro hiso nada

Peter did nothing

c. *John said nothing

(122) above illustrates the case of Spanish, Catalan and NC dialects of English sentence negation where the derivations are ill-formed in the absence of a NC term in a position c-commanding the VP. Although this structural requirement on the expression of sentence negation in NC languages is a necessary condition, it is also a sufficient condition. This means that provided that the NC term occupies a position inside the NegP, then the derivation becomes well-formed again.

(123) nessuno ha visto Mario

no one has seen Mario

In (123), the subject NC term *nessuno* clearly c-commands the VP. Assuming that the NC term is in the specifier of the NegP, the structural requirement on the licensing of sentence negation is thus satisfied and the sentence well-formed. To summarize, consider the Italian (124):

(124) a. Gianni non ha telefonato a sua madre

Gianni has not phoned his mother

b. Mario non ha visto nessuno

Mario saw no one

c. nessuno ha visto Mario

no one has seen Mario

In (124c) reproduced from (123), the NC term *nessuno* is in the Spec of the NegP therefore the S-structure requirement is satisfied. The same holds of (124a) where it is *non* which satisfies the "NC term inside the NegP in the overt syntax" condition. The complex (124b) is motivated by the fact that in the absence of *non* as seen in (121) the derivation is ill-formed

as it does not satisfy the S-structure requirement. This means therefore that *non* must be inserted[55].

5.4. A Structural Problem: The *Ne...Pas* Sequence

We have seen that Catalan is a NC language, therefore we expect that sentence negation in Catalan is only licensed when an NC term is above the VP.

(125) a. *en Pere ha fet res (Ladusaw 1992)
EN Peter has done nothing
Peter has done nothing
b. en Pere no ha fet res (Ladusaw 1992)
EN Peter NEG has done nothing
Peter has done nothing

In (125a), the object *res* is an NC term specified for a neg feature. *Res*, however, fails to license sentence negation as it occupies a position below the VP. Turning to (125b), *no* and *res* are both NC terms. *No* precedes the inflected verb so presumably is under the NegP. Sentence negation is therefore licensed. Consider now the equivalent structures in StF in (126):

(60) a. *j'ai vu personne
I have seen no one
I have not seen anyone
b. je n'ai vu personne
I NEG have seen no one
I have not seen anyone

Under the hypothesis that the StF structure *ne...personne/rien* is an NC structure, (126) can

[55]Acquaviva (1997) basically adopts the same idea. NC languages are subject to an S structure requirement and that no such requirement hold of DN languages. In NC languages the NegP must be overtly identified either by the head, the specifier or some nearby negative element.

be analysed as follows. In (126a), the NC term *personne* is in object position hence below the VP. (126a) therefore fails to satisfy the structural requirement necessary to license sentence negation in NC languages, and is ruled out, as required. In (126b), *personne* is still inside the VP, but the sentence is fine. (126b) differs minimally from (126a) in that it has the *ne* element preceding the inflected auxiliary under the IP/TP node. In (126b), *ne* must therefore be under the NegP and specified for a neg feature in order to license sentence negation.

This analysis of (126a) and (126b) shows that the *ne...personne/rien* structure obeys the "NC term above VP" requirement as formulated in Ladusaw's (1992) theory of NC. Standard French therefore falls in line with other NC languages.

Ladusaw's account also predicts that *ne*, as a fully fledged NC term, occupying a position clearly above the VP, should self license or trigger a negative operator since all elements of the chain have the same status. However, the data in (127) below does not support this hypothesis. *Ne* must combine with *pas* in order to express negation, as illustrated in (127b).

(127) a. *je n'aime les fruits
I NEG like the fruit
I do not like fruit
b. je n'aime pas les fruits
I NEG like NEG the fruit
I do not like fruit

In (127a), *ne* is not licensed to occur alone unlike *not* in NC dialects of English or *no* in Catalan:

(128) en Pere no veu la Maria
EN Peter NEG saw the Mary
Peter did not see Mary

To sum up, Ladusaw's proposal does not capture the differences between the *ne...pas* structures of Standard French and the expression of sentence negation in other NC languages. More generally, we can say that problems arise when seeking to reduce the so-called NC effects of the *ne...pas* and *ne...personne/rien* constructions to a chain as copies

analysis since *ne* does not behave as a typical NC term. I propose to address this question in the next chapter and argue that were we to differentiate between types of negative licensors (eg. expletive vs denoting objects), then the variations on the expression of sentence negation which have so far been left unexplained could be derived.

CHAPTER 3

Negative Chains : Expletives vs Negative Concord Terms

0. Introduction

To recapitulate, in the last part of Chapter 2, we have taken the view that sentence negation in negative concord (NC) languages is subject to an overt structural requirement which we can formulate as follows:

Neg Licensing Requirement (Adapted from Ladusaw 1992;1996)

(1) In order to legitimise an abstract negative operator, an NC term, irrespective of its X-bar status[1], must c-command the VP in the overt syntax.

We have also claimed that (1) provides an explanation as to why the expression of sentence negation in NC languages is sometimes overtly realised as a one part negation, and sometimes as a two parts negation.

Taking a concrete example, let us assume that Catalan is an NC language (ie. subject to the condition in (1)). Sentence negation in Catalan is therefore licensed whenever an NC term, is in a c-commanding position over the VP in the overt syntax. This is what happens in (2):

Catalan

(2) a. en Pere no veu la Maria
the Peter didn't see the Mary
Peter did not see Mary

b. ningu ha vist en Joan
no one has seen Joan

A single negative element -the head *no* in (2a) and the XP *ningun* in (2b)- licenses sentence negation. Consider now (3):

[1](A head or an XP category).

(3) a. *en Pere ha fet res (Ladusaw 1992)

EN Peter has done nothing

Peter has done nothing

b. en Pere no ha fet res (Ladusaw 1992)

EN Peter NEG has done nothing

Peter has done nothing

That a two parts negation is needed in (3b) is derived from the NC languages licensing condition in (1): without the NC term *no* as in (3b) which c-commands in the overt syntax the VP, (1) is violated[2].

The object NC structure of Standard French follows a similar paradigm. The object NC term cannot license sentence negation (4a), hence *ne* must be selected in the numeration and inserted (4b):

(4) a. *j'ai vu personne

I have seen no one

I have not seen anyone

b. je n'ai vu personne

I NEG have seen no one

I have not seen anyone

However, we also have some unexpected variations. *Ne* never expresses sentence negation as a single morpheme instead it always combines with *pas*.

(5) a. *je n'aime les fruits

I NEG like the fruit

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[2] Alternatively, the object can be fronted. However, morpho-syntactic constraints also clearly play a role as to the availability of overt object raising. In Spanish it is available in French it is not. (Cf. Chapter 1 where raising of the adverb to the locus of sentence negation interferes with the Spec-Head configuration between the subject and the verb in StF)

(i) nada quiere Maria (Laka 1990:117)

nothing loves Maria (Maria doesn't want anything)

I do not like fruit

b. je n'aime pas les fruits

I NEG like NEG the fruit

I do not like fruit

This is clearly in contrast with our assumption that provided that a NC term occupies a c-commanding over the VP in the overt syntax, then it can single-handedly license sentence negation[3]. In the second case, despite the fact that *personne* occupies a position c-commanding the VP, the subject negative structure of StF does not pattern like the NC subject structure of Catalan (2b) in which the subject NC term licenses sentence negation, but the two parts negation NC object structure in (3b):

(6) personne *(ne) voit Anna

no one NEG sees Anna

no one sees Anna

Nevertheless, instead of taking the complex *ne...pas* as the basic case and trying to account for the distribution of empty categories across NC languages, following Pollock (1989) and subsequent literature, I propose to retain the hypothesis that the realisation of sentence negation as a single negative morpheme is the basic case, and it is the complex structures *ne...pas* and *personne ne* which are in need of an explanation.

In this chapter, I explore some solutions. I propose that the *ne...pas* structure in (5b) is a negative concord structure of the expletive-associate type. To put it differently, the fact that *ne* in (5a) unlike Catalan *no* in (2a) cannot be free standing lies in its expletive status. On the other hand, I argue that the *personne ne* structure should be subsumed under a subject clitic doubling analysis.

0.1. Content Outline

This chapter is organised as follows. I introduce the theory of expletives *there/it* as given by

[3]In fact, we have argued at length in chapter 1 that the locus for the instantiation of sentence negation corresponds to *ne*'s overt placement.

Chomsky (1995) in section 1. I generalise it in section 2 to the *do*-support structures following Manzini (1992) and Grimshaw (1995). In section 3, I motivate a Chomsky(1995)-style expletive analysis of the element *ne* by showing that *ne* shares two fundamental properties with expletive *there*. When alone it is semantically vacuous. It only expresses negation as a member of a non-trivial chain (3.1). In 3.2, I introduce some data showing that *ne*, in restructuring clauses, is a scope marker for the interpretation of negative dependencies and consider to what extent we can conciliate the scope marking properties of *ne* with the expletive hypothesis put forward here.

In Section 4 I propose to transpose into the MP Ladusaw's (1992) NC analysis which accounts for the overt variations in the expression of sentence negation in NC languages. An overt head equivalently to an X^{max} category checks an abstract neg feature. Nevertheless, Ladusaw's analysis does not provide an explanation as to why *ne* cannot express sentence negation as a free standing morpheme. In 4.2, I integrate into Ladusaw's proposal a Chomsky's (1995) style expletive analysis of *ne*. That *ne* can only express negation as part of the non-trivial chain relation established with *pas* follows essentially from its status as an expletive. That *ne* makes no contribution to interpretation holds by definition. Standardly, expletives of the *there/it*-type are taken to be semantically vacuous. The non-trivial chain argument is motivated by two independent principles. Firstly, FI requires that "every symbol must receive an external interpretation by language independent rules" (Chomsky 1995:200). Secondly, "legitimate objects at LF are chains"[4] (Chomsky's 1995:194). *Ne* cannot be free standing as it violates FI. On the other hand, if *ne* combines with *pas* as in (4b), the object interpreted at the interface with C-I system is no longer the expletive, but the non-trivial negative chain. In 4.2.3 I reanalyse under this analysis the Standard French (StF) data and show that the differences that we find between the expression of sentence negation in StF and other NC languages such as Catalan can be explained while retaining the hypothesis that sentence negation in NC languages is specified for a strong neg target feature c-commanding the VP. I also derive from the analysis of *ne* developed here the structural distinction that exists between the expression of sentence negation in Standard French and Spoken French (SpF) (section 4.2.4). In the remainder of the section, I consider the consequences for saying that both head and X^{max} categories check a strong abstract neg feature. I show that this

[4]A controversial assumption since Chomsky (1995) argues that legitimate objects are only the ones contained in the numeration, in effect, excluding chains.

proposal can be accommodated within the present theoretic framework given the option of asymmetric head adjunction allowed in both the Bare Phrase Structure analysis of clitics (Chomsky 1993) and the covert feature raising analysis (Chomsky 1995). It is shown however that this analysis cannot be extended to wh-dependencies without some clearly unwanted consequences.

In 5, I look at alternative analyses of expletive negatives. I first review the claims made by Espinal (1992) and Espinal (1995) that the expletive negative interpretation can be derived from a semantic process (Espinal 5.1) or can be defined as an operator in the semantics (von der Wouden 5.2). However, I argue, along the lines of Corblin (1992) reviewed in 5.3, that the notion of expletive cannot be legitimized in the semantics and *ne* should be viewed as a morpheme which is not relevant to the interface with the C-I system and, therefore, must be eliminated. Nevertheless, if we retain the assumption that expressing sentence negation is a configurational notion[5] (Ladusaw 1992), then a definition of expletives solely based on their semantic contribution to -or absence of - interpretation in negative dependencies rules in elements like Catalan *no*; Spanish *no* and Italian *non* although a clear asymmetry exists between the expletive element *ne* and *no*, *no* and *non* in terms of locality (5.3.1). I conclude in 5.4 that Chomsky's (1995) account of expletives, where the crucial distinction is between elements that must enter trivial chain relations and those that do not have to, is required for an adequate characterisation of negative expletives. In 5.4.1, I consider some remaining problems for Chomsky's proposal.

In section 6, I introduce the complex subject structure *ne personne/rien* of StF which contrasts with Italian and Spanish preverbal structures. I show that the *ne* as an expletive analysis cannot be straightforwardly extended to the *ne personne/rien* structure. I consider other ways to account for the doubling effects of the construction. In particular, I review a subject doubling analysis in the sense of Rizzi (1986), an analysis in terms of dynamic agreement (Rizzi), and one which distinguishes checking as Spec-Head and as incorporation following a proposal by Rizzi and Roberts (1989).

1. Expletives of the *There/It*-Type

[5] Namely, that none of the morphologically negative elements express negation by themselves, but merely license an abstract negative operator.

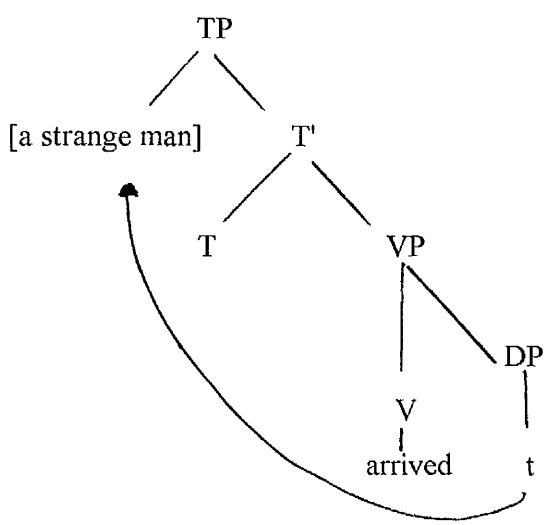
1.1. Expletives and Theta-Theory

In this section, I propose to look at what an expletive is in Chomsky's (1995) terms. Chomsky (1995) proposes that the structure of the sentence is divided into the VP shell, where the theta roles are assigned, and functional projections (FPs) which dominate it and where checking relations are met. Consider the sentence (7a).

(7) a. a strange man arrived
b. *Mary arrived a strange man
c. there arrived a strange man
d. *arrived a strange man
e. *there arrived

In (7a), the DP [*a strange man*] which is the argument of the predicate *arrived* is generated in the VP shell. English is also a language in which sentences must have an overt subject (ie. where (7d) is bad). In a checking theory such as Chomsky's (1995), it means that the head of TP has a strong D feature which requires the DP[*a strange man*] to be in the specifier of TP before Spell-Out, giving the derivation in (7f).

(7f)



English can also rely on an expletive strategy as illustrated by (7c). In (7c), the expletive *there* specified for a categorial D feature is inserted in order to check the strong D feature of Tense that the associate [*a strange man*] in the VP shell is unable to check through overt

movement. Expletives contrast with arguments[6] in that they do not get assigned a theta role, therefore they can be directly merged with a FP[7], outside the VP shell. The ill-formed (7e) shows that this is indeed the case. The verb *arrived* takes one argument, but *there* in the specifier of the TP cannot be assigned a role in that position. The derivation in (7e) therefore crashes. On the other hand, in (7c), the verb discharges its role on the associate *a strange man* in the VP shell, *there* being inserted under T to satisfy the checking requirement of T (EPP feature). In the covert component, following Lasnik (1995), the associate [*a strange man*] receives structural or inherent partitive case. This means that, in the covert component, the NP[8] (or its case feature) either does not raise, or it raises to an adjunction site other than the TP. In other words, I set aside the controversial analysis of the *there* NP construction, where the associate and not the expletive checks the target nominative case feature through covert raising to the TP[9]. The expletive can, however, remain free standing in the computational component since the only requirement at this level is the checking of formal features which, I assume, is satisfied. I adopt this hypothesis without further motivation and turn to the interface with the C-I system.

1.2. Expletives and the Interface with the C-I System

At the interface with the C-I system, the principle of full interpretation (FI) must be satisfied. I give a definition of FI below:

(8) FI requires that "every symbol must receive an external interpretation by language independent rules"(Chomsky 1995:200).

As non theta marked place holders, expletives are assumed to be semantically vacuous and must be eliminated at the C-I interface to satisfy the principle of Full Interpretation (FI). One way to operate is to insure that the expletive enters a non trivial chain relation with an

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[6]Or predicates following Williams's (1994) analysis of existential *there* sentences.

[7] "Notice that a checking relation can be established by Merge" (Chomsky 1995: 290).

[8]Or DP. I overlook here the distinction between DP and NP and its relevance in establishing a contrast between (6a) and (6c).

[9] For counter arguments to this hypothesis cf. Lasnik (1995).

appropriate associate. Under the assumption that "legitimate objects at LF are chains"[10] (Chomsky's 1995:194), then the object that is interpreted at the interface is the complex expletive-associate chain, and not the expletive itself.

Furthermore, I assume that the mechanism that drives the Form Chain operation between the associate and the expletive to be FI itself, since 'case', as argued earlier, cannot be the driving force of the movement of the expletive *there* associate to the TP. In fact, Chomsky (1995:365) also considers accounting for the case of the expletive *it* in terms of an FI requirement. It is FI which triggers the computational operation Form Chain in order to guarantee that (8) is satisfied. This hypothesis is supported by the data in (9).

(9) a. there is a strange man in the garden

b. *there seems to a strange man in the garden

Taking the case of the English expletive *there*, in (9a), all the relevant features on T have been checked without requiring the associate to raise since the T case feature is checked as a "free rider" when the strong EPP feature is checked under merger of the expletive. The associate NP also has its case requirements satisfied: inherent partitive case is assigned by the verb under government[11] following Lasnik's (1995) proposal. In a second step, *there*, driven by FI, forms a chain with the NP *a strange man* under the assumption that the expletive *there* combines with NPs assigned partitive case. The complex object < there, a strange man> formed now satisfies (8). (9b) also leads to a convergent derivation since the checking requirements have been met, but we have a difference in interpretability when we compare (9a) to (9b). This difference in interpretability arises from the fact that, there is no NP with partitive case available (in (9b) *a strange man* receives accusative case) hence no appropriate associate term is available, and *there* remains free standing. The derivation in (9b) ends up violating the principle of FI.

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[10]A controversial assumption since Chomsky (1995) argues that legitimate objects are only the ones contained in the numeration, in effect, excluding chains.

[11] The status of inherent case as assigned under government by the verb does not fully conform with checking theory where the assignments of theta role(s) and case are in complementary distribution. In practice, we find that this requirement is somehow relaxed.

1.3. Movement Chains and CHAINS

Once we have agreed that the form chain operation is driven by FI, we may want to reconsider whether we should distinguish this chain-formation process from the movement chains as proposed by Manzini (1992). Chomsky (1993a) defines chains as encoding the history of the successive applications of the operation move α. However, it is possible to view chains not solely as the end product of the move α operation, but as a separate concept. In other words, instead of defining chains as in Chomsky's (1993a) we can redefine them as an operation which links two or more elements sharing an identical set of features (Manzini 1992). I propose to adopt this position in order to avoid the problems associated with having a covert movement operation not driven by morphological requirements (Lasnik 1995), but forced by FI. It should be stressed that the form chain operation not resulting from movement is an operation only available to the interpretive principle FI which drives it. Meanwhile, other chain formation processes proceed as movement chains.

2. *Do*-Support as an X^0-Expletive

In this section, I show that *do*-support structures as exemplified in (10) can be accounted for in terms of expletive-associate chains of the X^0 type by isolating the properties that the expletive *do* shares with expletives of the *there/it*-type[12].

(10) I do not find this amusing

Evidence in favour of analysing *do* in (10) as an expletive is twofold. Firstly, *do* in (10) is similar to expletives of the *there/it* type in the sense that, like them, but unlike the lexical verb *find*, it is semantically defective. Secondly, *do* cannot be free standing as in (11b). It must combine instead with a full lexical verb. (11a) therefore supports the hypothesis that a non-trivial chain relation holds between the expletive *do* and the lexical verb.

(11) a. I do see Nelson

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[12]Cf. also the *do* as an expletive analyses of Manzini (1992) and Grimshaw (1995).

b. *I do Nelson (without the VP ellipsis)

These two properties of *do* are grounded in theta theory. More precisely, just as expletives *there/it* are not theta-role recipients, *do* fails to qualify as a theta role assigner. This is illustrated in (12):

(12) a. I saw Nelson

b. I did see Nelson

(12b) the sentence with dummy *do* has the same number of arguments than the sentence (12a) without it. This is only possible if adding *do* in (12b) does not modify the argument structure of the sentence (12a). Because dummy *do*, unlike the lexical verb *saw* does not assign role(s) then *do* must be semantically defective and as a result must enter a form chain operation with a theta role assigner in order to satisfy FI.

A question arises however as to why English relies on the *do* support strategy. The standard analysis is that the expletive *do* is seen as a kind of 'last resort' strategy in the sense of Chomsky (1991) to avoid a crash.

(13) a. I do not play football

b. *I not play football

In other words, in the case of *do*-support, we cannot similarly argue that S', the expletive version of a sentence S, and S itself are mutually compatible. Grimshaw (1995), working within the Optimality theory framework, also argues that "do-support"structures involve the same numeration at the outset, and that, S' wins over S (where S is the expletive less equivalent of S') because S', rather than S, is an optimal derivation. In particular, the expletive *do* in the Optimality framework is not in the numeration. It is, instead, a strategy available to the computational component to avoid the violation of a high ranking principle; principles being themselves ranked according to how important the violation of a given principle is[13]. In the Optimality framework, the *do* support strategy relied on in English is

[13]The notion of 'grammatical sentences' is replaced by the notion of 'optimal sentences'. An optimal sentence is the one that makes the most "appropriate" violations whereas a grammatical sentence means that no principle is violated. Although a principle violated

available in the computational component because the ranking of principles is itself language specific. On the other hand, in the Minimalist framework, the option of introducing *do*-support, a language specific device, within the computational component is simply not available. There is however evidence against the "last resort strategy" analysis.

When considered more carefully, the data shows that *do* makes a contribution to interpretation as part of a complex chain. In English the *do*-support structure expresses emphatic affirmation (Laka 1990) as illustrated in (14b) below.

(14) a. I go to bed early

b. I do go to bed early

There is a sense in which the *do*-support sentence in (14b) has no expletive less correlate. This difference in interpretation between (14a) and (14b) mirrors the differences due to either agreement or definiteness[14] facts that we find in the case of the *there/it*-sentences and their non expletive equivalents. The feature make up of *do* also supports the hypothesis that the expletive is not simply a term which "disappears" by Spell-Out. More precisely, the V feature on the dummy *do* is interpretable as, for instance, English *it*, which is specified for Φ features[15].

To sum up, although the precise implementation of an analysis of *do*-support, which remains to be provided under Chomsky's (1995), will not be investigated here, I assume, in keeping with the analysis of expletives of the *there/it*-type, that the function of *do* is to check the strong V feature[16] of the functional head Tense which the lexical verb is also specified for,

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invariably leads to ill-formedness, the ungrammaticality of the sentence can be acceptable to varying degrees hence the '* /??/?'notation. In the Optimality framework, on the other hand, the violation of a principle might lead to a well-formed derivation (ie. a ✓ rating). This distinction is somehow blurred in the Minimalist framework since some principles (eg. economy principles), but not all can be violated to establish convergence (cf. also Lappin and Johnson 1996 for a discussion of the performance related feasibility of "comparing derivations").

[14]For a discussion of "definiteness" effects cf. Section 3.2.2.2.

[15]This is not incompatible with *do* being an expletive since, an expletive of the *there/it* type can bear interpretable formal features cf.3.2.2.2.)

[16]Alternatively, a strong focus or neg feature which the verb is not specified for or is unable to check in the overt syntax might be involved. (I) on the other hand indicates that

but is unable to check through overt movement to the Tense projection.

3. The *Ne* Element as an Expletive[17]

So far, I have shown that the expletive-associate chain analysis as proposed in Chomsky's (1995) can be generalised to the *do*-support structures following Manzini (1992) and Grimshaw (1995). I propose to discuss the empirical evidence in favour of Chomsky (1995)-style analysis of the *ne...pas/personne/rien* structure in terms of A' expletive-associate chain where *ne* is the expletive and *pas/personne/rien* is the associate term (3.1). In 3.2, I show however that the expletive properties of the element *ne* appear to be offset by the fact that *ne* is a scope marker. Briefly, a scope marker is standardly taken to be a quantifier. The expletive *there/it* does not have scope marking properties. Nevertheless, there appears to be ways of reconciliating the scope marker's function of *ne* with its expletive analysis. Firstly, what a scope marker does is to constrain the interpretation of its associate rather than have an independent denotating function. Secondly, expletives of the *there/it*-type have what Chomsky (1995) loosely defines as "residual content".

3.1. Some Empirical Evidence

I essentially follow Espinal's (1992) line of investigation to motivate a Chomsky's (1995) style expletive analysis of the *ne* element. I show however that, whereas Catalan *no* did not turn out to share any property with the expletives *there/it,* we get some interesting results for the Standard French *ne* element. In particular, the *ne* element meets two of the main criteria needed in order to adopt such an analysis. Firstly, it makes no independent contribution to

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modals can raise quite high in the overt syntax and check the relevant features:
(I) * I do can sing

[17]I set aside the case of the wh-expletives as their analysis presents problems of definition similar to those discussed here. Namely, theta theory cannot be invoked therefore other factors must be relied upon. I refer the reader to Mc Daniel (1989)which makes a well-argued case for having wh-expletives. Mainly, the wh-elements *was* in German and *so* in Romani enter into highly local dependencies and wh-islands violations are highly ungrammatical. We can also add to the discussion that wh-expletives are homophonous with a non expletive category (cf. Grimshaw (1995) on *do*-support).

interpretation, and secondly it is always a member of a non-trivial chain[18]. I propose to motivate a Chomsky's (1995) style expletive analysis of the *ne* element by showing that the Standard French *ne* element share two main properties with the expletives *there/it.* Firstly, it makes no independent contribution to interpretation, and secondly it is always a member of a non-trivial chain.

Firstly, *ne* is semantically defective. This can be illustrated by the use of *ne* in affective contexts where it is licensed to occur alone. We find that adding *ne* to a downward entailing sentence like (15a), as in (15b), does not reverse its truth value.

(15) a. Je crains qu'il vienne
I am afraid that he will come
b. Je crains qu'il ne vienne
I am afraid that he will come

Sentence denotations are truth values. When applied at the level of the sentence, sentence negation is a function from truth values to truth values. Informally, we can say that its function is to switch the truth value of a sentence from true to false or vice versa depending on the model. (15) above indicates that *ne* alone has no negative import. (15b) which is like (15a) except for the *ne* element has a truth value identical to (15a)'s. Besides, *ne* in (15) makes no apparent semantic contribution to interpretation. The relevant generalisation from (15) is that *ne* is not a negative marker, but an expletive in the sense it is semantically vacuous. Moreover expressing sentence negation in Spoken French does not require the *ne* element (16).

(16) a. Marie voit pas l'éléphant
Marie doesn't see the éléphant
b. Marie voit rien
Marie doesn't see anything
c. *Marie ne voit l'éléphant
Marie does not see the elephant
d. *Marie ne voit quoique ce soit

[18] The problem of free standing *ne* is considered in section 5.4.1

Marie does not see anything

In particular, the constituent *ne* can be dropped, as in (16a), and (16b), but not the element *pas* or *personne/rien*, as in (16c) and (16d). In other words, we can recover the negative meaning of the sentence when *ne* is absent, but not without *pas* or *personne/rien*. This is unlikely if *ne* is a negative marker, but follows if *ne* is analysed as an expletive; an element which does not make any independent contribution to interpretation, but satisfies a structural requirement.

Secondly, *ne* must always be an element of a non-trivial chain in order to express sentence negation. Haegeman observes that *ne* must combine with *pas* or *personne/rien* to express sentence negation. I illustrate this below:

(17) *je n'aime les fruits
I NEG like the fruit
I don't like fruit

(18) je n'aime pas les fruits
I NEG like NEG the fruit
I don't like fruit

(19) *Marie ne voit qui que ce soit
Marie NEG sees anyone
Marie does not see anyone

(20) Marie ne voit personne
Marie NEG sees no one
Marie does not see anyone

When *ne* is free standing; *ne* does not express negation, as in (17), nor does it license NPIs, as in (19), *qui que ce soit*. For a negative interpretation of the sentence to obtain, *ne* cannot be free standing, but must instead be construed with either *pas* or *personne/rien*, as illustrated in (18) and (20). In other words, analogously to expletives of the *there/it*-type, *ne* must be a member of a non trivial chain.

Thirdly, a rapid cross linguistic review of non sentential negation in Romance languages shows that *ne* does not function as a typical negative marker. In particular, if we assume, along with Zanuttini (1990), that negative markers in Catalan, Portuguese, Spanish and

Italian are heads, then the generalisation is that Romance negative head markers can modify non sentential fragments except *ne*. This is shown in (21a-e).

(21) How did you manage in your exam?

a) não mal (Portuguese)

b) no tan mal (Spanish)

c) non male (Italian)

d) no tant malament (Catalan)

e) *ne (si) mal (French)

f) *ne pas (si) mal (French)

g) pas (si) mal (French)
not (so) bad

To answer the question in (21) an adverbial or degree fragment modified by a negative marker like Portuguese *não* or Spanish *no* is used. Under standard analyses, these negative markers are analysed as negative heads like French *ne*. The example (21e) above shows however that *ne* alone is not able to modify adverbial fragments. The X-bar status of *ne* cannot be the cause of the ill-formedness of (21e) since head negative markers in Romance can modify non sentential adverbial fragments. (21e) therefore constitutes evidence that *ne* cannot express negation on its own, but as part of a complex chain. Moreover, (21f) shows that *ne* distribution is unlike that of other Romance negative head (and specifier) markers. This finding can, in fact, be generalised to all types of non-sentential constituents as illustrated by the case of constituent negation below:

(22) a. l'histoire est devenu pas triste
the story became not sad

b. *l'histoire n'est devenu pas triste
the story became not sad

(23) a. un livre sur rien est invendable
a book about nothing is unsaleable

b. * un livre sur rien n'est invendable
a book about nothing is unsaleable

Ne only co-occurs with *pas/personne/rien* when negation has sentential scope indicating that *ne*'s function is essentially a structural one similarly the expletives *there/it*.
I have shown that, firstly, *ne* lacks semantic content. Secondly, *ne* must establish a relation with a negative concord term in order to express sentence negation. A natural explanation for the data is offered, I believe, by taking *ne* to be an expletive in the sense of Chomsky (1995).

3.2 *Ne* as a Scope Marker

Another property of *ne* is that of scope marker for sentence negation. In particular, a NC term like *personne/rien* in an embedded clause selected by a restructuring verb can have two distinct interpretations:

(24) a. il ne va voir personne
what he will not do is see anyone
b. il va ne voir personne
what will happen is that he will not see anyone

The difference in interpretation between (24a) and (24b) is due to a difference in scope of the negative concord term *personne* which is itself relative to the position of *ne*. *Personne* has a wide scope interpretation when *ne* is generated in the matrix clause, but a narrow scope interpretation, when *ne* does not c-command the restructuring verb *aller* in the matrix clause, as in (22b). In the next section I show how the scope marking function of *ne* appears to put into question the expletive analysis of *ne* pursued here.

3.2.1. Scope Markers as Operators

The interpretation of a quantifier is both dependent on its range and its scope; scope being standardly defined configurationally as the quantifier's c-command domain in the overt syntax. In cases where the quantifier's interpretation is ambiguous between two or more scope readings, it is assumed that there are at least two derivations that are generated for the same sentence, and that in each of these -possibly covert- derivations the quantifier occupies a position which reflects a given scope interpretation.

Kayne's (1984) analysis of *ne* as a negative operator is in keeping with the view that each derivation for a given sentence derives a quantifier scope interpretation. The negative operator *ne*'s like any other quantified expression give rise to scope ambiguities which are represented by two sentences that are equivalent but for *ne*'s c-command domain.

We can also envisage that the scope of a quantifier is indicated by a separate element. Rooth (1992) proposes to define such an object as an abstract semantic operator ~. The operator ~ explicitly marks the scope properties of another operator with the meaning of *only*. Although I come back to the characterization of association with focus in chapter 4, the introduction of the operator ~ is essentially made in order to avoid positing QR, a syntactic process subject to island constraints, while being able to configurationally distinguish between the wide vs narrow scope interpretations of *only* otherwise unaffected by syntactic islands. Since I have argued above that expletives are semantically vacuous, the characterization of *ne* as an abstract operator is not compatible with an expletive analysis either.

Finally, the expletive *there* is not a scope marker for its associate NP term. Whereas the expletive associate structure in (25a) is ambiguous, the overt movement structure is not (25b):

(25) a. there must have arrived many people

b. many people must have arrived (Brody 1995:29 from Williams 1989)

These differences can only be explained if we assume that establishing scope is dependent on the position of the associate, not that of the expletive. In (25a) the associate symmetrically m-commands the modal and can take scope over it whereas in (25b) it does not.

To sum up, *ne* was shown to be a separate morpheme whose specific function is to disambiguate the interpretation of *personne/rien*. As a consequence, the expletive analysis of *ne* put forward is somehow in jeopardy.

3.2.2. A Constraint on Interpretation

I propose to show here that although *ne* as a morpheme whose function is to identify the scope of a quantified expression contributes to the overall interpretation of the sentence by disambiguating the interpretation of its quantified expression, it cannot be an operator since no denotation can be assigned to it. I then present the empirical evidence that expletives

there/it also constrain the interpretation of their associate term.

3.2.2.1 Scope as an Interpretive Constraint

I show that ~ cannot be an operator since its function appears to constrain the interpretation of *only* rather than make an independent contribution to interpretation. Let us reconsider Rooth's (1992) analysis[19] more carefully. Defining a scope marker as an operator requires assigning it a denotation, but Rooth (1992) gives no such characterization. The operator/scope marker merely, as Rooth[20] himself puts it, "annotates a domain". Consequently, a contradiction arises since the scope marker ~ both denotes something, by virtue of its definition as an operator, and doesn't, since its function is to constrain the interpretation of the operator *only*. That disambiguation is a mere constraint on the interpretation of a quantified expression is made explicit in the PTQ account of wh-interpretation summarized by Lappin (1991). Wh-elements can take scope over the whole sentence or the subordinate clause. The different scope readings are however dependent on the verb denotation. Taking Chinese wh-in-situ as an example, the wh-element is interpreted in the lower clause in (26) if V denotes a function from a question denotation to a VP extension; but in the higher clause, if the verb denotes a function from a sentence denotation to a VP extension (Lappin 1991).

(26) a. Zhangsan zhidao ta muqin kanjian shei?
who does Zhangsan know his mother saw?
b. Zhangsan xiang-zhidao ta muqin kanjian shei
Zhangsan wondered who his mother saw?

In the disambiguated cases, what the semantics of the verb does is to constrain the

[19] Rooth (1996) essentially reintroduces QR to disambiguate the interpretation of *only* in association with focus, claiming that there are two types of OP movement; one sensitive to islands, the other not.

[20] Rooth works with a first order definable semantics where denotating objects solely consists of operators (connectives or quantifiers), predicates and entities. So, it seems that the motivation behind defining the scope marker ~ as an operator is to avoid defining it as a separate predicate or an entity.

interpretation of the wh-phrase: either the wh-element is interpreted as having scope over the higher clause, as in (26a); or the lower one, as in (26b).

3.2.2.2 Expletives and Features

We have seen that expletive *there/it* are semantically vacuous; in particular they do not disambiguate interpretation in terms of scope. The picture, however, is slightly more complex.

Consider first the case of expletive *there*. Chomsky argues that the expletive *there*, in (27), makes some semantic contribution to interpretation[21], possibly linked with the definiteness[22] of its D feature. As a result, *there* is incompatible with certain types of associate (called strong NPs) as distinguished by their semantic properties[23]. For instance, in (27b) and (27c), the expletive *there* is not compatible with universally quantified or definite expressions which are strong quantifiers. It only combines with associates with existential import (ie. weak quantifiers).

(27) a. there is a man in the garden

b. *there is every man in the garden

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[21]Consequently, Chomsky's(1995) stand is somehow different from a Diesing's (1992)-style analysis in which configurations are at the heart of the distinction between weak and strong quantifiers.

[22] "The following examples show that there is a difference in naturalness between existential sentences in which the focus NP is indefinite and those in which it is definite:

(i) a. there was a new wreck discovered

b. ?there was the Amsterdam discovered" (Lumsden 1990:110).

This informal description however has been superseded by the strong vs weak quantifiers distinction (Milsark 1974) formalised by Barwise and Cooper (1981) since it cannot capture the contrast that also exists between universals and indefinites.

[23]Barwise and Cooper (1981) have formalised the distinction between the set of quantifiers which can act as associate to *there* from those which cannot as follows:

A determiner D is strong if for every model M= <E, ⟦⟧> and every A⊆ E, if the quantifier ⟦D⟧(A) is defined then A∈ ⟦D⟧(A) (or A ∉ ⟦D⟧ (A),resp.). If D is not strong then D is weak (1981:182). To put it differently, if *DN is a N/are Ns* is automatically valid or contradictory then the quantifier DN is strong; if the sentence is contingent on the set denoted by N, the quantifier DN is weak.

c. *there is the man in the garden

We can extend this conclusion to the expletive *it* if we assume that agreement features which *it*, like other DPs/NPs, is specified for are interpretable. The presence of agreement features on *it* is attested by the agreement asymmetry below:

(28) a. that he'll resign and that he'll stay in office seem(s) at this point equally possible

b. it seem*(s) at this point equally possible that he'll resign and that he'll stay in office

Mc Closkey (1991) shows that the verb can only agree in number with the conjoined clauses when they function as the structural subject as illustrated in (28a). On the other hand, when the structural subject is the expletive *it*, plural agreement is not possible. In fact, the specification of expletives for interpretive features has lead, in the case of the expletive *it*, to a reanalysis of *it* as a quasi argument which does not enter into expletive-associate chain constructs (for a discussion cf. Vickner 1995).

A problem thus arises when choosing to define expletives as semantically vacuous while maintaining that an expletive constrains the choice of the associate or the verbal agreement. The problem is acknowledged by Chomsky (1995: 386) who points out that "we should be able to distinguish the possible residual content of each element as expletive *there/it* from the true semantic features". I propose here that the expletive *there* is not semantically vacuous per se, but it cannot make an independent contribution to interpretation either. It is only as part of the non-trivial chain formed with its associate that the expletive contributes to the interpretation. To put it differently, the expletive's semantic function is to constrain the way its associate is to be interpreted. Chomsky's (1995) proposal that sentences in (29a) and (29b) simply correspond to two distinct numerations now follows. The sentences with an expletive *there/it* can co-occur with the sentences that do not use the expletive strategy because they involve different interpretive constraints.

(29) a. there is a man in the garden

b. a man is in the garden

This also means that the definition of FI given in (8) must be somehow revised to insure that the only symbols (lexical items) which are legitimate objects at the C-I interface are those which can potentially contribute to the interpretation as one-membered chains.

To sum up so far, although the expletive *there/it* main function is to satisfy a structural requirement which, under a checking theory as advocated in the Minimalist framework, corresponds to the checking of a strong feature, it is not meaningless, but semantically defective.

3.2.3. Conclusion

I have argued in this section that the scope marking function of *ne* is not incompatible with the view that *ne* is an expletive since, even the pure expletive *there* has some interpretive effects, associated with the definiteness of its D feature[24].

4. A Chomsky's(1995)-Style Expletive Analysis of *Ne*

In this section, I propose to rewrite Ladusaw's (1992) analysis of NC languages into the Minimalist framework (4.1). In doing so, I stress that the abstract nature of the relation which regulates the licensing of sentence negation allows some variations among the set of permitted licensors of sentence negation. This becomes relevant in section 4.2 where I argue

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[24]If we take seriously the claim that the expletive-associate construct (in the narrow sense adopted by Chomsky 1995) can not only be generalised to X^0 (eg we have seen the evidence for *do*-support), but also to A' elements, then expletives other than *ne* have scope marking properties. Taking the case of Wh-dependencies in German first introduced by van Riemsdijk (1983) and discussed in more details by Mc Daniel (1989), there are two ways to form a question: (ia) full wh-movement of the wh-phrase to the +QSpec CP or (ib) insertion under the +QSpec CP of an element homophonous with either a wh-element (German *was*), the main wh-phrase undergoing partial movement to a -QSpec CP.This is exemplified with German below:

(i) a. mit wem glaubt Hans t dass Jakob jetzt t spricht? (1989:569)
b. was glaubt Hans mit wem Jakob jetzt t spricht?
With whom does Hans think that Jakob is now talking?

The two distinct strategies in (ia) and (ib) are equivalent in terms of meaning as indicated by the gloss. Specifically, while *mit wem* in (ib) raises to the embedded -QSpec CP it has matrix scope. Consequently, *was* in the +QSpecCP in (ib) is analyzed as an expletive which marks the scope of the main wh-phrase.

that the standard French licensor of sentence negation is the expletive element *ne*. This specification, I show in 4.2.3 accounts for the difference between the realisation of sentence negation in Catalan as a single neg morpheme and in Standard French as a two parts negation. In 4.2.4, I derive the difference between Spoken and Standard from the purely structural function of the *ne* element. Lastly, in 4.3 I consider the consequences of Ladusaw's analysis which in the P&P framework requires us to disregard the distinction between, say, the Italian DP *niente* and the X^0 category *non* for checking purposes.

4.1. Expressing Sentence Negation in NC Languages: A Minimalist Account

Ladusaw's (1992) neg feature theory of Negative Concord (NC) states that the process of NC in NC languages can be captured by a neg feature agreement theory which has the following defining features. All NC languages have the same structural requirement. A NC term (ie. an indefinite term specified for a neg feature) must be realised in a c-commanding position over the VP, identified here as the NegP[25], in the overt syntax in order to instantiate an abstract negative operator. The above requirement can be reformulated as follows in Chomsky's (1995) checking theory: (I) all elements entering a NC reading are specified for a neg feature and (ii) the head of the functional projection the NegP is specified for a strong neg feature[26] where a strong target feature must be checked before Spell-Out as they cannot be interpreted by the PF component.

In the checking theory, the strong neg target feature requires that a checking configuration between the target feature and an identical feature on LI is established before Spell-Out. Furthermore, before Spell-Out, a feature cannot enter a checking relation on its own, instead, lexical material must support it. Chomsky (1995) motivates this by arguing that the PF component can only interpret features which are morphologically supported. One of the consequence is that before Spell-Out if a feature raises, then pied piping of the whole category takes place. Checking of a strong feature therefore entails that a lexical element

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[25]The NegP is a heuristic tool. I have in fact proposed back in chapter 1, that the StF structure is incompatible with an independent NegP.

[26] Cf. Haegeman (1995) proposal (and Benmamoun 1997 for discussion) which, if transposed into checking theory, would require us to posit that the target neg feature is both strong and weak.

specified for a neg feature is in the specifier of the NegP[27] in the overt syntax. In transposing Ladusaw's analysis into the MP, I put the emphasis in the need for having an abstract neg feature morphologically supported in the checking relation rather than the need for having a specific morphological element in that configuration. Consequently, any type of element provided that it carries a neg feature can enter before Spell-Out into a checking relation with the abstract neg feature under the FP specified for it. This is important because it is now possible to see how the variations that we find in the realisation of sentence negation among NC languages arise. It is the morphological (or otherwise) requirements of individual categories which are directly implicated.

4.2. Expletive Analysis

We are working with the assumption that a uniform structural constraint is imposed on the expression of sentence negation in NC languages. In this section, I argue with reference to StF that some of the variations in the realisation of sentence negation within the set of NC languages can only be explained if we distinguish between types of lexical items (LIs) that license sentence negation in NC languages.

More precisely, I propose to develop an analysis of sentence negation in StF based on the hypothesis that StF is an NC language that relies on an expletive strategy in order to express sentence negation.

4.2.1. The Neg Feature Specification of *Ne*

I assume that Standard French is an NC language, therefore a strong neg feature on an FP, identified here with AgrP, c-commands the VP. I am also claiming that Standard French is a language in which the structural constraint on the expression of sentence negation in NC languages is not satisfied by an NC term, but an expletive. More precisely, I argue that, although the StF marker *ne* is assigned a neg feature as it enters the numeration set, *ne* is in fact an expletive element.

The expletive *ne*'s function towards expressing sentence negation analogously to the expletive *there/it* is a purely structural one. *Ne* is inserted in order to satisfy the overt checking

[27] Or, as later becomes relevant, head adjoined to it.

requirement triggered by the strong neg feature on AgrP which we associate with the expression of sentence negation in NC languages.

The specification of the formal feature of the expletive element *ne* as interpretable is in keeping with Chomsky's (1995) assumptions about the feature make-up of expletives of the *there/it*-type[28]. We saw earlier that expletives of the *there/it* type, in particular English *it*, carry agreement features which are interpretable. The problem is that it is no longer possible to distinguish the expletive from the NC terms *pas* and *personne/rien* in terms of their featural make-up. As it turns out, the analysis of the expletive *there/it* and *do* shows that it is not their formal feature that distinguishes them from non-expletive elements, but rather Theta Theory. Expletives *there/it* are in complementary distribution with elements that are assigned a theta role. What distinguishes the expletive *do* from a lexical verb is that it cannot assign a theta role. Although Theta Theory cannot be invoked in the case of the negative expletive *ne*, there is an obvious semantic difference between *ne* and its associate NC term. *Ne* has no denotation whereas NC terms are defined as indefinite terms (ie. a restricted variables)[29].

To sum up, no further computations are required once the strong target neg feature in Agr^0 has been checked by either an NC term or an expletive. In the next section, I show, however, that, at the interface with the C-I system, denotating objects[30] and expletives do not pattern alike when submitted to FI.

4.2.2. The Interface with the C-I System

As seen above, there is no difference between expletives and NC terms in terms of their formal feature make-up. Once the strong neg feature in the NegP is checked the result is invariably convergent at the interface with the A-P system. However, following Chomsky (1995), I am arguing that in the case of the expletive, the checking of its neg feature is not sufficient to insure that the sentence is interpreted at the interface with the C-I system.

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[28] Note also that formal interpretable features are not always equivalent to semantic features; a formal feature being what drives the computation.

[29] I set aside the question as to how *no/n't/non* should be characterised under Ladusaw's (1992/96) theory of sentence negation.

[30] In this case, restricted variables.

Instead, a form chain operation must take place between the negative expletive and an associate NC term where a NC term is a denotating object. This is because at the interface with the C-I system an additional condition must be met. More precisely, the principle of Full Interpretation (FI) whose definition is reproduced from (8) must be satisfied.

(8) The Principle of Full Interpretation demands that "every symbol must receive an external interpretation by language independent rules"

(Chomsky 1995: 200).

As argued all along, expletives are semantically defective. Consequently, expletives cannot be interpreted as members of one membered chains since FI rules them out as illegitimate objects at the interface with the C-I system. They must therefore be somehow eliminated. Back in section 1, and also following Brody (1995), I have taken the view that chains are legitimate objects at the interface with the C-I system and that it is chains which are interpreted. One way of eliminating the expletive is, then, to insure that it is a member of a non-trivial chain[31]. Now, the object which is interpreted is the whole chain, and not the expletive element. In the case of the expletive *ne*, FI requires that *ne* should not remain free standing at the interface with the C-I system, similarly to the expletive *there* in (9a) above. A form chain operation -a chain link operation as defined in section 1.3- between *ne* and the NC term *pas/personne/rien* must take place to satisfy FI. We now have an explanation as to why the expletive *ne* never remains free-standing. FI is at the root of this phenomenon.
I propose to see how the analysis works concretely with reference to Catalan and Standard French sentence negation in the next section.

4.2.3. A Reanalysis of NC in StF and Catalan

Instantiating sentence negation NC languages is no longer restricted to insuring that an NC term is in a c-commanding position over the VP. Another strategy may be invoked: An expletive can also be specified for a neg feature and satisfy the structural requirement on the expression of sentence negation in (at least a subset of) those languages.

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[31] Note that Delete α is never a free option. Before an element is deleted it must meet some specific syntactic requirements. I chose here the Form-Chain operation as such a requirement. Additionally, Deletion as "Enter into a Form-Chain operation" gives us for free the fact that expletives always have an associate.

Recall Ladusaw's (1992) proposal: when an NC term specified for a neg feature c-commands the VP, then it licenses an abstract negative operator, as illustrated in (30):

NC term with a neg feature (Catalan)

(30) a. en Pere no ha fet res (Ladusaw 1992)
EN Peter NEG has done nothing
Peter has done nothing
b. en Pere no veu la Maria (p.c. Olga Bruni)
EN Peter NEG saw the Maria
Peter did not see Maria

In (30a) and (30b), the negative concord term *no* specified for the neg feature c-commands the VP in the overt syntax, and, thus, satisfies the structural requirement which licenses the introduction of a negative operator. Both sentences are interpreted as negative sentences. I have proposed however that the neg feature can be realised not only on an NC term, but also on an expletive, as in Standard French. This is an important difference since, in Ladusaw's theory, all NC terms, whatever their precise semantic characterisation turns out to be (indefinites- variables or GQs with existential import-or negative connectives or GQs), have a denotation[32], and, in that, are crucially distinct from expletives which have none. Under Chomsky's theory (1995), the distinction is made apparent by imposing an additional constraint on the expletive at the interpretive level. In particular, expletives must be eliminated at the interface with the C-I interface by FI. In the case of Standard French, where the neg feature is realised on an expletive, the negative feature theory operates unchanged, but some additional requirements have to be met, which have to do with the theory of expletives and FI (cf. section 1 and 4.2). The Standard French data can now be explained by the fact that an expletive must be in a non-trivial chain in order to be interpreted.

Expletive with a neg feature (Standard French)

[32] Recall however that " the sense in which it is meaningful to call *not* or *no* a negative polarity item remains to be explored"(Ladusaw 1992:247).

(31) a. Il ne pense à rien

he NEG thinks of nothing

he does not think about anything

b. *Pierre ne voit Marie

Peter NEG sees Mary

Peter does not see Mary

c. Pierre ne voit pas Marie

Peter NEG sees Mary

Peter does not see Mary

In (31a) and (31b), the expletive *ne*, specified with a neg feature c-commands the VP in the overt syntax. It means that negation is licensed in both (31a) and (31b) similarly to Catalan above. However, according to FI, *ne*, as an expletive element, must also be a member of a non-trivial negative chain. In (31a), a form chain operation takes place between the expletive *ne* and its associate rien driven by FI. In (31b), there is no NC term which *ne* can link up to. *Ne* therefore remains free standing at the interface and the derivation is ill-formed. We can also see why by adding *pas* as in (31c) the derivation becomes well-formed again. *Pas* is a NC term to which *ne* can link up forming a non trivial chain which satisfies FI.

To sum up, I am arguing that the structural requirement by which a neg feature must be in a c-commanding position over the VP in the overt syntax is imposed on all NC languages (cf. Ladusaw 1992). NC languages, however rely on different strategies in order to satisfy this constraint. That this is so is further supported by the data of African American Vernacular English (AAE).

Negative Inversion (African American Vernacular English)

(32) a. can't nobody beat'em (Cleveland, Labov et al.)

b. ain't nobody never told me what to do (EPA)

AAE is a NC language which licenses sentence negation by negative inversion (Rickford, Sells and Wasow 1994). The process of negative inversion is clearly a variant on the licensing conditions of sentence negation we have dealt with so far. Negative inversion however insures that an element specified for a neg feature is always high enough in the structure to

satisfy the overt checking operation forced by the strong neg feature of the NegP. We thus have another NC language which meets the overt syntax stipulation that a morphologically supported neg feature should be in a c-commanding position over the VP in order to express sentence negation, albeit in a different way.

4.2.4. Standard and Spoken French as NC vs DN Languages

We are also able to explain the difference between the expression of sentence negation in Standard French and in Spoken French initially discussed in Corblin (1992). Consider (33) again:

(33) a. Marie ne voit rien (Standard French)
Marie doesn't see anything
b. Marie voit rien (Spoken French)
Marie doesn't see anything

The structural realisation of sentence negation in (33a) and (33b) is clearly distinct although the overall meaning remains constant. One way to account for that is to argue that *ne*, in (33a), does not independently express negation, rather it satisfies a purely structural requirement imposed on the expression of sentence negation in Standard French. More precisely, in Standard French, analogously to other NC languages, a lexical element specified for a neg feature must c-command the VP in the overt syntax. Spoken French, on the other hand, is free from this requirement. The difference between Standard French and Spoken French must therefore lie in the status of the Standard French language argued to be a NC language.

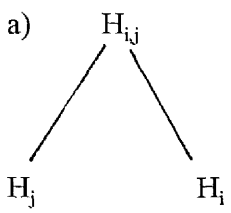
4.3. Negative Heads vs Specs

We made the hypothesis that a head element (eg. *non* in Italian) equivalently to a phrase (eg. *nessuno/niente*) is a NC term and can potentially check a neg feature. I propose to discuss in the last part of this section the theoretical implications that arise from this analysis.

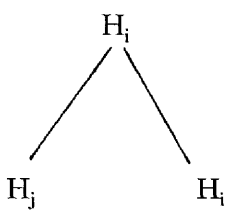
4.3.1. Asymmetric Adjunction (Chomsky 1993; 1995)

We may first ask whether the MP can accommodate checking of a strong feature by an (overt) head element. With respect to structural considerations, the answer is in the affirmative. Since Bare Phrases structure (Chomsky 1993), the Head-Spec distinction has somehow lost its strength. For instance, clitics are analysed as both X^{max} elements and X^0 elements. They share, with X^{max} elements, the property of "not projecting any further" as well as that of entering into checking relations, and, with X^0 elements, the fact that they are involved in head adjunction or incorporation processes. This can be represented structurally by having a clitic element inserted under the specifier of a FP, and subsequently incorporating onto its (main) head. It is also possible to simply assume that asymmetric structures result from head adjunction. More precisely, the bipartite head structure resulting from the adjunction of the clitic to the head of the MaxP is not symmetric as in (34a). Instead, it looks like (34b) where the main head H_i, but not the adjoined one H_j, ultimately projects its H features to the maximal projection.

(34) a)



b)



Moreover, as seen above, covert (feature) movement is a permissible operation. In the MP (1995) asymmetric adjunction is generalised to all covert movement operations since features (head elements) are said to raise and check a weak uninterpretable target feature.
However, some unwelcome consequences arise from treating X^0 elements equivalently to X^{Max} elements as checking a strong feature, I propose, therefore to consider them in the next section.

4.3.2. The Neg Criterion Revisited

Recall that under the Neg Criterion analysis proposed by Haegeman and Zanuttini (1992) some elements are not NC terms, but rather heads of the NegP as motivated by the structural distinction between X^0/X^{Max} categories. That *non* and *nessuno* have complementary functions is clearly specified in the formulation of the Neg Criterion reproduced below:

(35) Neg Criterion:

A neg-operator must be in a Spec-Head configuration with an X [neg]

An X [neg] must be in a Spec-Head configuration with a neg-operator

The Neg Criterion requires that for every negative specifier there must be a corresponding negative head category (or more generally a head category specified for a neg feature) and vice versa for every neg head, a negative specifier. We have seen however that sentence negation in a NC language like Italian is more often than not overtly realised as a single morpheme. This means that the realisation of Italian sentence negation corresponds to an incomplete representation of a more complex Specifier-Head relation. As result, empty categories either head or specifiers need to be posited. Conversely, the cost of assuming that the so-called heads check an abstract neg feature in the same way that X^{Max} elements do allows us to specify a uniform overt syntax constraint for sentence negation: the neg feature on the FP is a strong feature[33].

4.3.3. Wh-Criterion

The Neg Criterion is in fact an extension of the wh-criterion proposed to account for direct wh-questions in English as illustrated below:

(36) who can you see t ?

However, even, the hallmark case of wh-questions in English is not without its problem for the Minimalist Program. Brody (1995b) argues, for instance, that, under the checking theory, C^0 is specified for an abstract +Q feature, therefore once the Specifier (or the moved head element) has checked the +Q feature no further movement should take place. As (36) shows, however, this is plainly not the case. The +Q feature is checked twice; once by the specifier and once by the verbal head, or the specifier is checked against both the +Q feature and the verbal element raised from I^0. Whichever way one seeks to explain it the overt Specifier-Head relation analysis which accounts for the English structure is a redundant operation which

[33] I have shown in chapter 2 that simply assuming that a strong feature is checked by an empty category will not do.

should be eliminated, or, at the very least, should not be taken as the basic case. However, it is taken as the basic case, although, still following Brody's (1995) argumentation, and, considering now the case of overt wh-movement in embedded wh-questions, the reverse can obtain in English:

(37) a. *I wonder what whether I saw t?
b. *I wonder what did I see t?[34]

In both (37a&b) a wh-phrase is in complementary distribution with a head; a fact clearly troublesome for the wh-criterion[35], but which follows if we take head and specifier categories to have the same checking function. Further empirical evidence that an overt Spec-Head relation is often difficult to reconciliate with the overt linear ordering is shown in StF root questions:

(38) qui Jean a-t-il vu?
who Jean has-cl.subj. seen?

In wh-root questions in French, the subject intervenes between the wh-phrase and the verbal head. This has, in fact, been taken as evidence that there is no verb raising to C^0 (cf. Zanuttini 1997).

Nevertheless one must be careful with generalising the reformulation of the Neg Criterion to wh-dependencies. If either a head or a wh-element can check a strong +Q feature, then the traditional distinction between overt vs covert wh-dependencies disappears. More precisely, taking a wh-in-situ language like Japanese, under a reanalysis where the (formal) Japanese head *ka*, similar to the wh-phrase in English, satisfies the strong +Q feature structural requirement, Japanese should pattern like English overt wh-movement; This is contrary to facts.

(39) a.*who do you believe the fact that he found t?

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[34] Grammatical in some dialects of English.

[35] (37a) is ruled out as a violation of the doubly filled Comp filter.

b. Anata-wa kare-ga dareka-o mitsuketa to iu kot-o o sinzimasuka?[36]
you-top he -subj who-+Q-obj find-past that fact-obj believe-+Q
who do you believe the fact that he found t?

Checking by a head vs a wh-phrase yield distinct locality effects. Head licensing appears to be both more constrained (cf. Simpson to appear on Iraqi Arabic & Indi) and less constrained (Japanese) than overt wh-licensing. In other words, despite the fact that wh-in situ languages differ from one another in terms of locality constraints, the head vs wh-element distinction and its ensuing consequences in terms of locality effects remain.

5. Analyses of Expletive Negatives

I propose here with reference to the expletive negative marker *ne* that among the different conceptualisations of the notion of expletive negation an adaptation of Chomsky (1995)'s theory of expletives *there/it* as laid out in the preceding section is the correct way to proceed. The idea that expressing negation can involve expletive elements is not a new one. The concept of expletive negation has been introduced to refer to elements that are somehow linked to the expression of negation (more generally DE environments) although they may not express it in themselves. I propose to assess the Chomsky's style analysis developed here against other expletive analyses[37]. I show, in particular, that *ne* as opposed to Catalan *no*

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[36] Without the intermediate +Q marker *-ka*, the sentence is degraded (pc).

[37]I set aside Brody's (1995) analysis of covert wh-movement as wh expletive-associate chains as not representative of the narrow definition of expletives adopted here which I propose to motivate with reference to negative dependencies. Brody proposes, somehow following van Riemsdijk (1983), that in a representational framework, the wh-in-situ dependencies can be represented as non-L related expletive-associate CHAINS. Brody argues that similar to the German case of partial wh-movement discussed above, where the wh-expletive in German is a scope marker and always c-commands the full wh-phrase, we can say that the wh-in situ dependencies corresponds to a wh-in-situ c-commanded by a covert expletive in a scope position. In other words, " in covert English [...] wh.-raising structures [in (i)][Brody] assumes an empty expletive to be present, forming a CHAIN with the wh-in-situ":
(i) who saw what (1995:31)
Setting aside the debate on the representational vs derivational views, what Brody seems to be doing is lumping together elements which have different syntactic properties. In particular, the wh-in-situ cases have locality constraints which are distinct from those of the partial movement type. We have seen that the relationship between the wh-expletive and its

cannot be defined in terms of a process of logical absorption of its negative force (Espinal 1992) because *ne* never contributes any negative meaning to the interpretation. Moreover, defining *ne* as an operator (von der Wouden 1994) goes against the fact that *ne* does not make any independent contribution to interpretation. I argue that it is best to view *ne* as a morpheme which is not relevant to the interface with the C-I system and must be eliminated along the lines of Corblin (1992). Reference to the semantics of *ne* is however insufficient since elements which Suňer (1995) calls resumptive negatives qualify under this definition despite the fact that they display a different behaviour with respect to syntactic islands[38]. I argue however that the differences can be captured under an account of expletives such as Chomsky's (1995) where the crucial distinction is between elements that can enter trivial chain relations and those that cannot. In the last section I consider some remaining problems for Chomsky's (1995) proposal.

5.1. Expletives as Negatives as Undergoing Logical Absorption (Espinal 1992)

Espinal (1992) considers a treatment of expletive negation in terms of logical absorption to account for the expletive use of Catalan *no*. *No* is the marker of negation in Catalan, but it can also be interpreted as expletive negation as illustrated in the examples below:

(40) a. en Pere no veu la Maria

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associate is highly local. Inserting an expletive in Romanian makes a superiority violation worse:

(ii) a. (?)kas na jane sosqe o Demiri mislinol t t so marjum t ?(1989:577)
whom don't you know why Demir thinks that I hit?
b. *so na jane sosqe o Demiri mislinol t kas marjum t?
wh-expletive don't you know why Demir thinks whom I hit?

This contrasts with the English wh-in-situ cases where, as seen above, the wh-phrase can rescue an island violation:

(iii) a. *I'd like to know where who hid it (Kayne's 1983 (34a))
b. I'd like to know where who hid what (ibid. 1983 (34b))

In other words, Brody's account of wh-in-situ as expletive-associate dependencies essentially runs into the same problems than the account of the negative dependencies discussed above. Namely, distinct locality constraints govern covert wh-dependencies and wh-expletive-associate dependencies.

[38] This might be due to that fact that it is difficult to assess the semantic contribution of these elements in complex chain constructs.

Peter does not see Mary

*Peter sees Mary

b. Haurem d'intervenir abans que (no) arribi el nou gerent

We'll have to take part in the discussion before the new manager arrives

Espinal argues that *no* in (40a) is basically a negative marker which under certain conditions can give rise to a process of logical absorption leading to the expletive interpretation of *no* (40b). The conditions which should be met in order to get the expletive reading of the negative marker are the following. *No* must be selected and governed by a lexical item which has the semantic property of "entailing negation"[39]. The semantic property of the lexical element which selects *no* means, in turn, that the negative content of the marker *no* is incompatible with the principle of FI at the interface with the interpretive system. The marker *no* is therefore interpreted as an expletive: " logical absorption is necessary because the logical content of specific lexical items which select and govern the negative marker already entails a negative logical content"(Espinal 1992: 356).

This particular analysis of "logical absorption"[40] however appears contrary to facts, since in Catalan, an expletive reading of *no* is always ambiguous with a negative reading of *no* provided that the negative interpretation does not lead to a contradiction. This is illustrated below:

(41) temia que no plogues

I was afraid that it would (not) rain

Espinal further argues that the fact that the expletive *no* can be free standing at the interface with the C-I system while making no independent contribution to interpretation is compatible with the FI requirement because the negative meaning of *no* can be recovered from the

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[39]Equivalently this is the property of monotone decreasing or downward entailing functors defined as follows (Ladusaw 1983):

(i) An expression (d) is a DEE or polarity reverser iff its denotation function d' is such that:

$$\forall X, \forall Y[X > Y \Rightarrow d'(Y) > d'(X)]$$

[40] Similarly, it has been proposed that in non veridical contexts the expression of truth and falsity is suspended hence the phenomena of expletive negation (Zwarts 1995).

semantics of the lexical item which selects it. To put it differently, Espinal introduces a government and a selection requirement in the syntax to facilitate the recoverability of meaning lost through logical absorption.

I essentially argue here that logical absorption cannot be invoked to define an expletive negative because logical absorption needs an underlying negative interpretation that can be neutralised. This may be true for Catalan *no*, but it certainly isn't the case of the StF *ne*. In other words, what Espinal refers to as expletive negation is a misnomer. In Espinal's Catalan *no* is not an expletive, but an inherently negative marker[41]. Whether logical absorption appropriately captures the particular "expletive" readings of the negative marker *no* is an issue which will not be addressed here.

For clarification purposes, let us review the main differences between Catalan *no* and StF *ne*. Firstly, Catalan *no* we have seen is always ambiguous between an expletive and negative interpretation as illustrated above in (33); *ne*, on the other hand, isn't. I reproduce the relevant examples below:

(41) temia que no plogues
I was afraid that it would (not) rain

(15) b. Je crains qu'il ne vienne
I am afraid that he will (*not) come

Secondly, *ne* is a true expletive in the sense that although it is always tied to the notion of negation (or downward entailments (DE)), it can never express negation on its own. In other words, in the absence of a DE environment *ne* can never license itself in contrast with Catalan *no*:

(40) a. en Pere no veu la Maria
Peter does not see Mary

(17) *je n'aime les fruits
I NEG like the fruit
I don't like fruit

[41] Bearing in mind that the conceptualisation of this notion remains to be done.

In fact, Standard French *ne* behaves more like the Catalan element *pas* in (42) which Espinal describes as follows: "In Catalan unlike French, *pas* can occur always with *no* in expletive comparative constructions but without providing any specific semantic interpretation" (Espinal 1992: 338f:4).

(42) Gasta mes ell en tres mesos que no (pas) tu en tot l'any
spends more he in 3 months than NO PAS you in whole the year
He spends more in 3 months than you do in a whole year

Moreover, similar to *ne* in StF, the element *pas* in Catalan cannot self license. Instead it must combine with *no*.

(43) *(no) digues pas que no t'he agudat[42]
don't say that I have not helped you

To conclude, I set aside the data on Catalan *no* as an expletive negative and Espinal's analysis of it as not illustrative of the characterisation of the *ne* element and turn to von der Wouden's (1994) proposal.

5.2. Expletive Negatives as a Sentential Equality Operator (von der Wouden 1994)

Von der Wouden (1994) also analyses *ne* under the general phenomena of paratactic negation or expletive negation. He argues that *ne* is an operator sharing the licensing constraints of negative polarity items (NPIs[43]) rather than negative markers. Setting aside the NPI analysis of *ne*, the characterisation of *ne* as a denotating element (an operator) is surprising since *ne* does not make any obvious contribution to interpretation. Von der Wouden's solution is thus to define *ne* as an identity operator which takes a sentence S to give a sentence S' where the truth conditions of S and S' are equivalent. However, the inherent contradiction remains since the element *ne* is solely defined in terms of its truth functional contribution to the sentence, but has no truth conditional effect on the sentence. Moreover, despite being strictly

[42] In Modern Catalan *pas* tend to be altogether omitted(p.c.).

[43]For a succinct introduction to NPI licensing cf. Ladusaw's (1983).

compositional, this account goes against what we know about natural languages. It is generally known that natural languages do not have vacuous quantification. In other words, they do not allow the stacking of quantifiers with no (free) variable to bind. Vacuous quantification may be an altogether different phenomenon, but its consequences remain the same. Under von der Wouden's analysis, an operator which does not alter the truth conditions of the sentence, is added to the sentence. This problem can easily be resolved by considering another plausible alternative, namely, *ne* is an expletive[44]. By defining *ne* as an expletive (ie a semantically vacuous element) then we predict that it does not make any semantic contribution to the sentence.

5.3. Expletives as Semantically Vacuous Elements (Corblin 1992)

Corblin (1992) analyses the *ne* element as an expletive to highlight its semantic vacuity. In particular, Corblin, who operates on "quasi" semantic objects, takes the Spoken French data, where the negative meaning can be retrieved although *ne* is absent, to indicate that *ne*, being semantically irrelevant to the negative interpretation, can be dropped from the semantic representations.

(44) Standard French

a. Marie ne voit rien
Marie NEG sees nothing
Marie doesn't see anything

Spoken French

b. Marie voit rien
Marie sees nothing
Marie doesn't see anything

From the data in (44b), Corblin proposes that the occurrence of the *ne* element in (44a) should simply be disregarded when building a DRS (-DRSs can be characterised as

[44] Another option left open for further investigation is the syntactic "reflex" analysis of *ne* in DE contexts proposed by Hoeksema and Klein (1995) similar to the negative Comp in Basque or subjunctive tense in Greek and Spanish which are triggered when in the scope of a DE expression.

intermediate representations between the syntactic and semantic interface-). It is important to note that Corblin distinguishes the expletive element *ne* from *personne/rien* in (45):

(45) Je n'ai rien dit à personne
I have said nothing to anyone

Disregarding the *ne* element in the derivation above, Corblin (1995) attributes (45)'s interpretation as a single instance of negation to the phenomenon of parasitism. Assuming that the first NC term *rien* introduces a negative operator as a condition the universe of discourse (DRS), then the second NC term *personne* can be made parasitic on the negative condition already introduced, instead of introducing a new negative condition.

I have adopted Corblin's view that *ne* makes no obvious contribution to the negative interpretation, and that it intuitively makes sense to entirely disregard it at the DRT level of representation. This does not mean however that *ne* should be completely ignored. In particular, in Corblin's (1992) account, no explanation is provided as to why *ne* is obligatory in the syntax of StF, but not SpF. Moreover, as I propose to show next, a definition of expletives which only makes reference to their semantic content or rather their absence of it will rule in elements which, at first sight, may appear to be expletives but, in fact, bear essential differences to them.

5.3.1. Some Consequences

I propose to consider the evidence for analysing *non/no/no/n't* as expletive elements in a manner that is similar to the Standard French (StF) *ne*, before presenting empirical evidence against it.

5.3.1.1. *Non/No/No* as Expletives

If we analyse as proposed by Ladusaw (1992; 1996), NC terms as indefinites terms (ie. restricted variables) and licensors of an abstract negative operator, then no appropriate set restriction can be attached to *non/no/no* in (46):

(46) a. non ho parlato Italian

I did not talk

b. no hable Spanish

I did not talk

c. en Pere no veu la Maria Catalan

the Peter does not see Maria

An expletive analysis such as the one proposed by Corblin (1992) solves this problem. Instead of viewing *non/no/no* as pure syntactic variables, a rather ad-hoc proposal as noted by Acquaviva (1997), they can be analysed as expletives which, under Chomsky's (1995) theory, disappear at the interface with the Conceptual-Intentional system.

Positing the existence of non A-related expletives also accounts for the facts in (47) and (49) where the negative markers appear to make a purely structural contribution to the expression of sentence negation. Consider (47):

(47) a. nessuno ha visto Mario

no one has seen Mario

b. Helena *(non) ha fatto niente

Helena hasn't done anything

Assume that licensing sentence negation in Negative Concord (NC) languages requires that a NC term should be in a c-commanding position over the VP in the overt syntax (Ladusaw 1992) as in (47a). The object *niente* being inside the VP in (47b), *non* is inserted to satisfy the structural constraint on the expression of sentence negation. The same explanation can be carried over to *no/no* in (48):

(40) a. no vivimos a nadie Spanish

we saw no one

b. no m'ha telefonat ningu Catalan

no one has phoned me

Consider now the Old Spanish preverbal NC structures where *non* combines with the preverbal NC term *ninguno* in (49):

Old Spanish [45]

(49) conbidar le ien de grado, mas ninguno non osava (l.21)[46]
they wanted to invite him but no one dared
(poema de Mio Cid circa 1200)

Catalan represents an intermediate stage where the element *no* optionally co occurs with the preverbal NC term (50).

(50) a. ningu m'ha vist Catalan
b. ningu no m'ha vist
nobody has seen me

In Catalan, *no* insertion in (50b) does not alter the meaning of (50a). This, according to Ladusaw, "commits us to seeing [...*no*] as not expressing negation"(Ladusaw 247:1992). (50b) can in fact be put into parallel with the subject doubling effects in (51) below where the clitic, analysed by Kayne (1983) as an expletive, does not alter the theta frame of the main verb:

(51) el Gianni *(el) magna Trentino (ex. from Rizzi 1986)
the Gianni eats

Thirdly, the above properties of *non/no/no* mirror in an uncanny way those of StF *ne* analysed as an expletive. The expletive *ne* like Italian *non* in (37b) satisfies the structural constraint on the expression of sentence negation (52a) and like Old Spanish *non* in (49) and Catalan *no* in (50b) gives rise to "subject doubling effects" (52b).

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[45]Based on Suňer's (1995:237) data (eg.
(i) a. ninguno non los ose defender
no-one not them dare to defend
no-one dare to defend them
b. nada non acabo
nothing not finished
nothing has finished).

[46] Note that given the linear order (49) could not be analysed as an instance of NPI licensing.

(52) a. il n'aime personne
he does not like anyone
b. personne n'aime Helen
no one likes Helen

Nevertheless, the above generalisation that *non/no/no vs ne* are very much alike in both their structural function and their contribution to the interpretation of the negative dependencies should be qualified in view of the different locality conditions governing on the one hand *no/no/non*, and, on the other, *ne*. The distinction, I argue, can only be motivated by a Chomsky (1995)-style expletive analysis.

5.3.1.2. Connectedness Effects

I am going to show with reference to the data on Connectedness effects that arise in the case of sentence negation that the *ne* element has indeed a "special status".

5.3.1.2.1 Longobardi (1989)

Longobardi (1989) notes that NC terms inside a subject island (standardly infinitival IPs) cannot be licensed to express sentence negation with matrix scope:

(53) *Chiamare nessuno sara possible
it will not be possible to call anyone

The same appears to hold of Standard French:

(54) *appeler personne sera possible
it will not be possible to call anyone

However, adding another NC term to the matrix can rescue the derivation, and a matrix scope reading is again possible:

(55) a. chiamare a nessuno non sera possible

calling no one NEG will be possible

it will not be possible to call anyone

b. chiamare nessuno *(non) migliorera la situazione

calling anyone will not improve the situation

Longobardi argues that in Italian the NC term which takes sentential scope from within an island of extraction is subject to a licensing procedure distinct from the standard requirement whereby an NC term must be in the NegP in the overt syntax (Ladusaw 1992). Longobardi argues that Italian *nessuno* inside an IP subject as in (55) can take sentential scope if it is parasitic on another NC term in the matrix clause equivalently to the Connectedness effects that arise in the case of wh-dependencies:

(56) a. *I'd like to know where who hid it (Kayne's 1983 (34a))

b. I'd like to know where who hid what (ibid. 1983 (34b))

(56) illustrates the case where a superiority violation (56a) can be weakened by adding an additional licensing wh-in situ (56b). Consider now the following contrast in grammaticalness:

(57) a. llamar a nadie no servira de nada

calling to no-one not be of use for nothing

it is not the case that calling someone will be of any use

b. *llamar a nadie servira de nada

calling to no-one not be of use for nothing

it is not the case that calling someone will be of any use

The derivation in (57b) is ill-formed despite the presence of the NC term *nada* in the matrix clause. It seems that the presence of a NC term in the matrix is a necessary, but insufficient condition on indirect licensing. I propose that the contrast between (57b) and (57a) can only be explained if we assume that the NC term inside the island must not only be parasitic on a NC term, but a well-formed structure expressing sentence negation. We have seen that in NC languages sentence negation is subject to a direct licensing requirement which can be loosely defined as the following requirement: "an NC term must be in a c-commanding

position over the VP in the overt syntax". The direct licensing requirement accounts for the subject/object asymmetry in Italian (47) and Spanish (58) below:

(58) a. *(no) vivimos a nadie
we saw no one
b. nadie (*no) comio
no one came

Looking back at the indirect licensing cases, we expect that this requirement must be met here too. In the Italian example (55a) *non* c-commands the VP, on the other hand, the object NC term *nada* in (57b) clearly doesn't. Consequently, (57b) is ill-formed because the direct licensing constraint is not satisfied. Inserting the NC term *no*, as in (57a), rectifies this problem. The direct licensing requirement being met, the parasitic term *nadie* inside the subject IP can in turn be (indirectly) licensed by sentence negation.

5.3.1.2.2. Suñer (1995)

Emphasis on the functional aspect of *no* in Spanish analysed by Suñer (1995) as a resumptive negative is used independently to explain why, when a NC term is inside a clitic-left dislocated structure, we have the following alternation (Suñer 1995:240):

(59) a. a ninguno de ellos me dijeron que Juan (*no) les habia escrito para Navidad[47]
to none of them 3rd-pl told that Juan not to-them had written for Christmas
b.*a ninguno de ellos quien te dijo que Juan no les habia escrito para Navidad
to none of them who told that Juan not to-them had written for Christmas
c. a ninguno de ellos me dijeron que Juan no les habia escrito para Navidad
to none of them who told that Juan not to-them had written for Christmas

Suñer argues that a NC term inside a clitic left dislocated phrase can be identified with the

[47] Not everyone agrees that the NC term inside a clitic left dislocated sentence doesn't have to be doubled. Some speakers of Spanish only accept (i) below:
(i) a ninguno de tus estudiantes yo no los vi durante las vacaciones
none of your students I NEG them saw during the holidays

clitic in the embedded clause. However, when the matrix clause is a +wh-question as in the (59b) example, the sentence is ill-formed. Suñer argues that the wh-phrase in (59b) "interrupts the "connectivity effect" between the constituent with the preverbal NC term and its coindexed element"(1995:260). This locality constraint violation can however be overriden if *no* is inserted as in (59c).From a purely structural perspective, *no* plays a role similar to the resumptive pronouns in (60) (Suñer 1995:261) which are inserted in order to rescue a locality violation:

(60) a. *que diccionario no sabias a quien habia devuelto Celia?
what dictionary didn't you know whom had returned Celia?
b. que diccionario no sabias a quien se lo habia devuelto Celia?
what dictionary didn't you know to whom Celia had returned it?

Given the obvious structural parallelisms, Suñer (1995) proposes to call *no* in Spanish a resumptive negative.

5.3.1.2.3. Standard French

Turning to StF, I am arguing here that *ne* in the matrix clause unlike Italian *non* (or Spanish *no)* cannot rescue a NC term inside an island for extraction[48]. That the status of *ne* as an expletive comes into play when stating the locality constraints of the StF NC dependencies is shown by the following data. In (61) *personne* inside a sentential subject cannot be construed with matrix *ne*.

(61) *appeler personne n'ameliorera la situation (Moritz and Valois 1994)
calling no one will improve the situation

However, the sentence becomes considerably better when a NC term distinct from the expletive *ne* is in the matrix clause (62):

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[48] Some French speakers allow (i):
(i) le frère de personne n'est venu
This does not mean however that *ne* can independently license sentence negation, but rather that direct licensing of a NC term inside a DP is acceptable to some speakers.

(62) ??appeler personne ne donnera jamais rien [49].
calling anyone will never be of any use

(63) indicates that very marginal connectedness effects can arise in StF NC dependencies. In order to explain the ill-formedness of (61) we can either argue that the direct licensing constraint is not satisfied or *ne*, unlike other NC terms, only participates in highly local dependencies. The first option can be rejected outright as *ne* c-commands the tensed verb assumed to overtly raise to the tense node in French. Furthermore, we have shown that *ne*'s main function in StF is to satisfy the structural constraint on the expression of sentence negation in StF accounting for the following contrast in StF:

(63) a. il n'aime personne
he does not like anyone
b. *il aime personne
he does not like anyone

The asymmetry between (61) and (62) must follow therefore from the special status of the *ne* element. (64) essentially shows the same thing. It is clear that *ne* imposes additional locality restrictions on NC dependencies leading to an ill-formed derivation (64a).

(64) a. *je ne savais avoir invité personne (Deprez 1995)
I was not aware having invited no-one
b. personne n'a demandé a Marie de rien manger
no one had asked Marie to eat nothing

To sum up thus far, we have seen that, in the subject islands cases, the associate NC term inside a sentential subject could be made parasitic on Italian *non* or Spanish *no*, but not StF *ne*. The clitic left dislocated sentences in Spanish illustrated the same point; *no* can rescue a wh-island violation. Consequently, when dealing with *non/no vs ne*, the underlying intuition

[49]The acceptability judgements are from Moritz and Valois (1994). I adopt them here as they reflect my own intuitions, however, connectedness effects, in the case of negative dependencies, do not always seem to be accepted by French speakers.

is that we are dealing with objects which have distinct syntactic properties. Nevertheless, we have seen that it is difficult to assess the semantic content of elements like *no/ non/ne* etc. in complex chain constructs. Another diagnostic must therefore be invoked to distinguish between them. In the last section, I argue that Chomsky's (1995) proposal where expletive elements are defined in terms of the syntactic "trivial vs non trivial" chain criterion makes the required difference.

5.4. The Non-Trivial Chain Argument

We have seen that *non/no/no* and *ne* differ from each other with respect to non local dependencies. I am going to show now, based on Chomsky's (1995) definition of what constitutes an expletive, that this is due to the fact that only *ne* is true expletive.
Taking Catalan *no* as an example, I propose that although *no* can satisfy an overt constraint on the expression of sentence negation and enter into subject doubling effects like the expletive *ne*, it should be distinguished from *ne*. Consider the data in (65):

(65) a. *Pierre n'a vu Maria
Peter did not see Maria
b. en Pere no veu la Maria
the Peter did not see Maria

Catalan *no* but not StF *ne* can be free standing. If we use Chomsky's trivial vs non-trivial chain diagnostic, then Catalan *no* cannot be an expletive since expletives must always be part of a non-trivial chain relation as required by FI[50]. The same can be concluded from languages like Old Spanish where negative doubling occurs, or languages like Italian or Spanish where *non/no* must be inserted if the NC term itself is unable to satisfy the structural constraint on the expression of sentence negation. The negative elements *no/non/no* in these languages can independently express sentence negation:

(66) a. non se abre la puerta, ca bien era cerrada (l.39)

[50] This obviously does not preclude *no* in Catalan from entering non-trivial chains relations.

the door was not to be opened as it was well closed

(poema de Mio Cid circa 1200)

(67) a. non ho parlato — Italian

I did not talk

b. no hable — Spanish

I did not talk

c. en Pere no veu la Maria — Catalan

the Peter does not see Maria

Finally, we have seen that in DE contexts, the expletive reading of a negative term like Catalan *no* is always ambiguous with a negative reading (41).

(41) temia que no plogues

I was afraid that it would (not) rain

I propose therefore not to identify elements like *no/non/no* as negative expletives[51] although they have the property of "satisfying a structural condition while making a minimal contribution to interpretation" (Brody 1995).

5.4.1. Related Problems

A problem remains, however, with the view that expletives cannot be interpreted as elements of one-membered chains, since, as seen above, *ne* in DE contexts can be free standing. This problem is, in fact, not limited to the *ne* element. It also arises in the case of the expletives *it/il* when used with weather verbs.

(68) il pleut.

it rains

Standardly, *it* and *il* in (68) are taken to be "quasi arguments" which can receive a theta role.

[51]Their characterisation is yet to be investigated.

In fact, analyses have been developed that stress the similarities of the elements *it/il* with arguments rather than expletives (eg. Vickner 1995). None of these analyses however explain their "degenerate" status. In particular, similarly to *ne* whose use is highly restricted, *it* or *il* always combines with an associate term when used with lexical verbs distinct from weather verbs.

5.5. Conclusion

Setting aside the problem of free standing *ne* in DE contexts, I have proposed that the trivial/non-trivial chain parameter, based on Chomsky's (1995) analysis of the expletive *there/it*, required us to draw a distinction between *no/no/non* and *ne*. In other words, only *ne* which must always be a member of a non-trivial chain construct was found to have striking structural similarities with the expletive *there/it*. This provides, in my view, sufficient evidence to adopt an analysis of *ne* as an expletive based on Chomsky's (1995) analysis of the expletive *there/it*, and as developed in section 4.

6. The *Ne Personne* Structure

I have claimed so far that we can explain the differences between the StF data and other NC languages by the expletive status of the *ne* element. I want to consider now whether this analysis can be extended to the asymmetry we find in the preverbal cases. I propose to argue against Di-Sculio's and Tremblay's (1995) expletive analysis and consider alternative ways of explaining how the *ne personne* structure could be derived. In particular, I propose to look at how lack of dynamic agreement could account for the structure, or, alternatively, consider how the clitic doubling analysis proposed for the StF subject interrogative clitics could be extended to *personne ne*.

6.2. Preverbal NC structures

The subject NC structures' pattern can be summarised as follows. In (69) when the NC term occupies a subject, or, more generally, a preverbal position the element *no* in Spanish or *non* in Italian is not overtly realised. In Standard French, however, the preverbal NC term *personne/rien* always combines with the *ne* element as in (69a).

(69) a. personne *(n') est venu

no one came

b. rien *(n') est possible

nothing is possible

c. nadie (*no) ha venido

no one came

d. nessuno (*non) e venuto

no one came

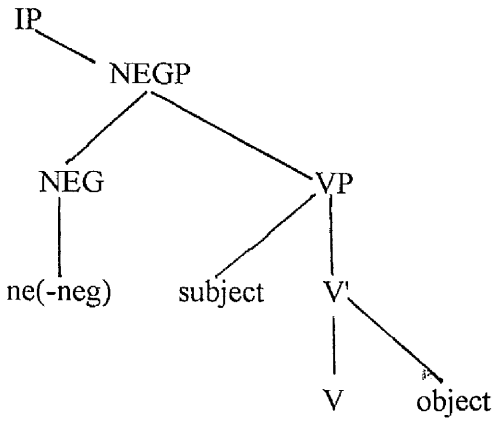
In order to explain the facts in (69), we could capitalise on the expletive analysis of *ne* as suggested above, or, as argued by Di Sculio and Tremblay (1995). The subject *personne ne* structure is thus explained by the defective status of the *ne* element as opposed to *no* in Spanish and *non* in Italian which are negative markers.

6.2.1. Di Sculio and Tremblay (1995)

I propose to look at whether the status of *ne* as an expletive can explain the contrast between the subject NC term structure of standard French which is realised by the complex *ne personne* whereas the simplex *nadie/nessuno* is used in NC languages like Italian or Spanish. In my analysis, the expletive *ne* carries a neg feature, but is not assigned a denotation. Consequently, although *ne* participates in neg feature agreement structures I predict that it does not independently express negation or "self license"[52] (Ladusaw 1992). Di-Sculio and Tremblay (1995), independently, also explain the special status of *ne* by arguing that it is an expletive in the sense that it is under specified in "some ways". Their analysis however differs from mine in that, while being the head of the NegP, the expletive *ne* does not have a neg feature as represented in (70a).

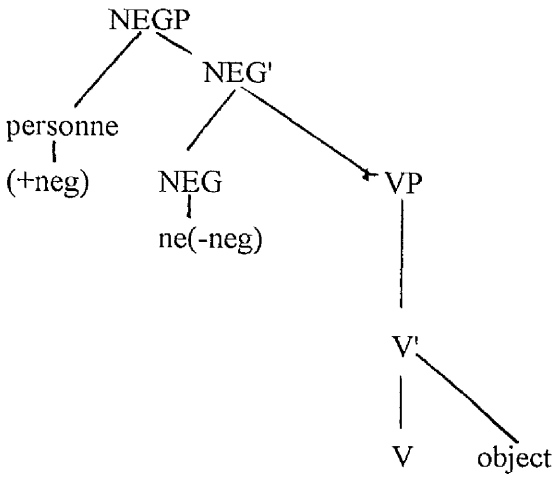
[52]The difference is semantic: *ne* has no semantic status *personne/rien* are restricted variables.

(70a)



The inherent contradiction that arises from the configuration in (70a) can however be resolved by insuring that an element specified for a neg feature is in the specifier of the NegP, as in (70b).

(70b)



Some questions arise however. Firstly, as represented in (70a), a FP is no longer the projection of the feature of a minimal element which functions as its head. Instead, matching of the NEG category, for which the FP is specified, with the neg feature of a terminal element can take place at any time during the derivation. In other words, there is a sense in which the structure fully specified for features is already "there" alongside lexical items drawn from the numeration. Moreover, features matching can either be resulting from the insertion of a head or a specifier element. Consequently, the property of endocentricity of the phrase structure in the P&P framework is rather controversially, lost. Secondly, and more to the point, the

analysis fails to generalise to other complex negative preverbal structures. Looking at a wider range of data, we find that negative doubling occurs in languages where the negative element can independently express sentence negation. For instance, in Old Spanish preverbal NC structures involve doubling. The element *non* combines with the preverbal NC term *ninguno* in (71a) while independently expressing sentence negation (71b).

Old Spanish [53]

(71) a. conbidar le ien de grado, mas ninguno non osava (l.21)
they wanted to invite him but no one dared
b. non se abre la puerta, ca bien era cerrada (l.39)
the door was not to be opened as it was well closed
(poema de Mio Cid circa 1200)

In Catalan *no* which expresses sentence negation in (72b) also co occurs with the preverbal NC term (72a).

Catalan

(72) a. ningu no m'ha vist (Badia Margarit 1962:131)
nobody NEG me has seen
nobody has seen me
b. en Pere no veu la Maria (pc Olga Bruni)
EN Peter NEG saw the Maria
Peter did not see Maria

The structural difference noted in (69) between the preverbal use of sentence negation in Italian or Spanish as opposed to StF cannot therefore reside in the degenerate status of the element *ne* since the NC terms *non* in Old Spanish and *no* in Catalan occur alongside another preverbal NC term as in (71a) and (72a) although they behave like Modern Spanish *no* and Italian *non* in that they can be free standing negative markers in (71b) and (72b). Under Di-Sculio's and Tremblay's hypothesis, this is equivalent to saying that both Old Spanish and

[53] Note that given the linear order (71) could not be analysed as an instance of NPI licensing.

Catalan preverbal negative structures require a doubly neg licensed NEGP.

Let us now investigate another alternative based on *ne*'s clitic property as discussed in chapter 1.

6.3. Subject Clitic Doubling: Clitics as Agreement Markers (Rizzi 1986)

I propose to consider treating *personne ne* in (69a) on a par with the subject clitic doubling structure of Trentino in (73) which exhibits what looks like a duplication effect:

(73) el Gianni *(el) magna (Trentino)
the Gianni he eats
Gianni eats

In his analysis of clitic doubling in Trentino, Rizzi (1986) proposes that not only is the clitic is directly adjoined to the head forming a unit, but it also licenses the full category, possibly phonetically null. For instance in (74) below, a pronominal clitic subject is required to license a pro category in the specifier of INFL:

(74) pro el magna
Gianni eats

More generally, Rizzi (1986) claims in his analysis of Trentino clitics that there is a dichotomy between heads, and among them (syntactic) clitics, which license XP categories and non heads which are licensed by those heads. To put it differently, the X-bar level (eg. Heads vs Maximal) of a category determines its functional role (licensor for heads and licensee for maximal projections). In terms of the tree geometry, as seen in section 4.3.1, this means that a clitic always projects a feature (or a bundle of features) to the MaxP (diagram 34a[54]).

The question that immediately arises is why shouldn't we, as in the analysis of Trentino clitic doubling above, treat *ne* as an agreement marker which, together with the abstract neg

[54]I think this is essentially what Sportiche (1992) argues when he describes "a clitic as some type of agreement" (Sportiche 1992:21).

feature, license the NC term *personne*? There are three arguments against this view. Firstly, *ne* as a neg agreement marker which projects neg features goes against the hypothesis that *ne* is an expletive. Secondly, the clitic as licensor analysis is incompatible with the analysis developed in section 4 where I argued, for independent reasons, that a head specified for a neg feature equivalently to a phrase checks the abstract strong neg feature on the relevant FP. Instead, we have proposed that we should view negative morphemes of the *non/no* type as mixed categories in the sense that their X-bar theoretic status is that of X^0 elements, but they do not project their features any further, similar to X^{max} categories (cf. Diagram 34b). Thirdly, an analysis of French object pronominal clitics as agreement markers is also unlikely since, similar to NP categories, they trigger agreement on the verb:

(75) a. la femme a été appréhendée par les policiers
the woman have-3rdSg. been arrested-FemSg. by the policemen
b. les policiers l'ont appréhendée
the policemen her-have-3rdPl. been arrested-FemSg

I propose to consider next the hypothesis under which standard French lacks dynamic agreement which Italian is specified for.

6.4. Checking D and neg

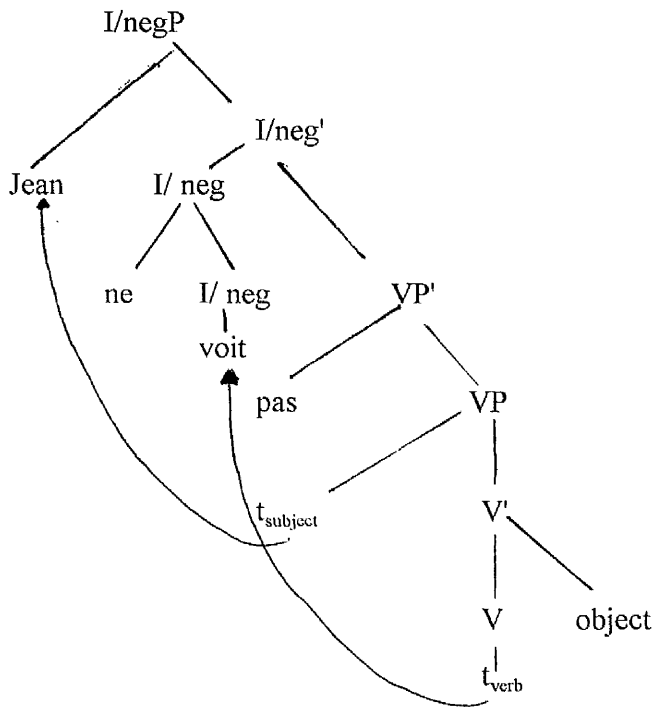
I propose here that the clitic *ne* is inserted because the subject NC term *personne* cannot check the strong neg feature. Take Haegeman's (1995) analysis of Italian subject NC dependencies. Haegeman (1995) argues that the ability of the subject NC term in Italian to check both a neg and a case feature is due to the bipartite structure of AgrP. A bipartite head structure is created as the result of the adjunction to Agr of the phonetically empty neg head. Under the bipartite head configuration, the subject NC term is thus able check both its case (D and Φ) features and its neg feature under the same specifier position. Lack of a bipartite head therefore means that the two features are checked under two distinct FPs.

One option is thus to assume that in StF, unlike Italian, subject NC terms cannot check their neg feature along with their case (D and Φ) features requiring thus the insertion of the clitic *ne*. In other words, StF unlike Italian lacks dynamic agreement.

Let us first consider the structural representation for *personne ne*. In chapter 1, the subject

verb sequence in French was shown to be a PF merger structure which, except for clitics (including *ne*), cannot be interrupted. A PF-merger being syntactically identified as a Spec-Head configuration, the standard French IP structure[55] is therefore as follows:

(76)



The question that arises is whether *personne* also occupies a subject position, since Rizzi (1986) claims that French does not have syntactic clitics, and, therefore pronominal clitics are in complementary distribution with the subject. This is so although (78b) appears equivalent to the Trentino subject clitic doubling example in (74) reproduced below:

(77) a. el Gianni *(el) magna (Trentino)

b. Jean il mange (French)

Gianni eats

However, Rizzi argues that *Jean* in (77b) does not occupy a subject position, but a left dislocated position. A difference which is made apparent when we compare Trentino and

[55] Note that I abstract from the inherited verbal features. If represented then the assumption is they ought to be represented up to the maximal projection level.

French NC terms:

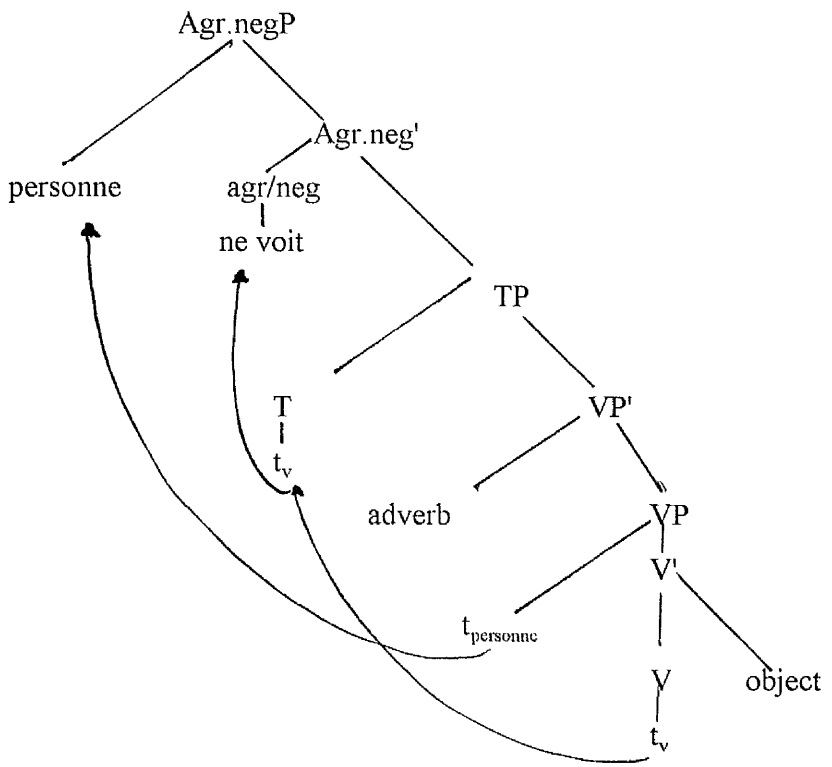
(78) a. gnun l'a dit gnent (Rizzi 1986:396)

b. *personne il n'a rien dit

nobody he has said anything

In other words, the fact that in Trentino but not in StF subject clitic doubling is compatible with bare quantifiers, means that (77b) in French is not a subject clitic doubling, but clitic left dislocated structure. This also means that if NC terms never occur in topicalised positions, then *personne* in the clitic doubling structure *personne ne* occupies the subject position. Furthermore, in chapter 1, I have proposed that the locus of sentence negation is realised as a strong neg feature under the AgrP (TP under Nash's and Rouveret's (1997) assumptions). In other words, *ne* does not merge under TP moving subsequently along with V, but directly merges under AgrP. Following these considerations, the structural representation for the *personne ne* structure should therefore be (79):

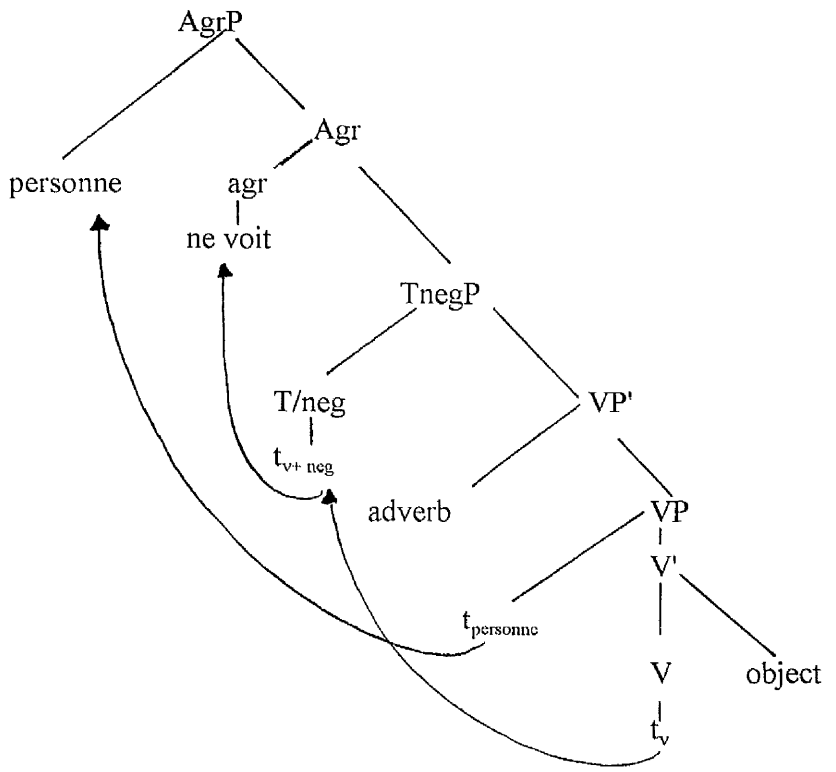
(79)



However, we cannot maintain the structural configuration in (79) while proposing that *ne* is

inserted to check the strong neg feature that the subject *personne* is unable to check since it contradicts our earlier assumption, that the neg feature and the D feature head two distinct functional projections in StF. Consequently we have to make revisions to the assumptions adopted in Chapter 1. More precisely, the locus of sentence negation must be somehow lower than the AgrP. I propose therefore that *ne* is merged onto T^0 as follows:

(80)



In (80) *personne* raises directly onto AgrP to avoid improper movement -or is merged directly under it if one takes the subject internal hypothesis to be obsolete-. The clitic *ne* directly head-adjoins to the head of the TP which I assume is a bundle of features FF which includes neg/tense and has no phonetic realisation. Head adjunction of *ne* is an asymmetric operation, and checks the abstract strong neg target feature of T. *Ne* as a negative expletive therefore satisfies the structural requirement imposed on the expression of sentence negation in NC languages which would otherwise not be met. Furthermore, *ne* is a clitic to the finite verbal element, thus, in a second step, it raises to the AgrP.

6.5. Multiple Strong neg Features

Alternatively, we may envisage that *personne ne* should be captured under a multiple strong neg features checking analysis.

Chomsky (1995: Section 10) proposes that the same strong feature (eg. case) can be checked more than once to account for the transitive expletive structures (TEC) in Icelandic exemplified below:

(81) Það hafa einhverjir gestir [$_{VP}$ brotið myndbandstækið]
there have some guests broken the VCR
some guests have broken the VCR

The analysis for TECs is as follows. Structurally, in (81), more than one overt (subject) position within IP is licensed: the position of the expletive and the position of its associate. In languages with two subject positions available, the functional head Tense is specified for multiple strong (case) features which must be checked by both the overt raising of the argument and the insertion of an expletive in a structure where multiple (Specs) XP adjunction is possible.

Turning to the *personne ne* construction, and, assuming that multiple neg features checking is involved, the subject *personne* and *ne* both specified for a neg feature check the strong neg feature in AgrP. However, if no further proviso is made, then the object NC term should, as in the case of Russian which seems best analysed as a NC language specified for multiple strong neg features, raise overtly:

(82) a. nikavo nie panimaiet rouskii iasik
no one not understand Russian language
b. on nitchevo nie panimaiet
he nothing not understands

The equivalent of Russian (82b) however is ill-formed in French:

(83) il rien ne comprend
he nothing not understands

The account of *personne ne* in terms of the multiple neg checking hypothesis therefore has to be somehow restricted in its application.

I propose to look at ways of formalising the intuition that a strong feature can be checked or manifested in the overt syntax, and, in the latter case, additionally checked by LF. In particular, if *ne* manifests a strong neg feature whereas an NC term like *personne* or *rien* checks a strong neg feature we can account for the *personne ne* structure while ruling out as required (83). This idea could be executed by using a variant of Di-Sculio's and Tremblay's (1995) analysis based on the expletive status of *ne*, but I propose to capitalise on the analysis of *ne* as a clitic, instead. More precisely, I propose to adopt a Rizzi's and Robert's (1989)-style analysis

6.5.1. Checking vs Manifesting a neg Feature

Rizzi and Roberts (1989) develop an account of the complex inversion in French where clitic doubling of the inverted subject NP is required in direct questions. It is based on Baker's (1988) assumption that case can be assigned to clitics by incorporation.

(84) qui Jean a-t-il vu?
who Jean has he seen

In (84) both the interrogative clitic and the subject are assigned case[56]. In other words, the clitic doubling structure of French is analysed in terms of multiple case feature assignment,

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[56]Rizzi and Roberts (1989) remark that although French has a subject clitic doubling structure in interrogative contexts "the French construction is highly selective in that it is restricted to direct questions and other environments featuring feature fronting of the inflected verb", adding, with reference to Trentino, that "no such construction specific restriction is found in the ordinary cases of clitic doubling" (1989:2):

(i) qui Jean a-t-il vu?
who Jean has he seen

As a consequence they propose the following structural representation for the subject clitic doubling in (I): The interrogative clitic is base generated under the Specifier position of AgrP in keeping to the assumptions that French clitics are phonological clitics. It then incorporates under C^0 while the NP base generated in the Spec of the VP left adjoins to C' as illustrated in the structure below:

(ii) $[_{CP}$ wh $[_{C'}$ NP $[_{C0}$ I^0-cl]IP]]] (1989:7)

although, crucially, it is a more restricted notion of it. Rizzi and Roberts starts from the hypothesis that there are three distinct types of case assignment configurations which are arbitrarily parametrised cross-linguistically: (i) the Spec-Head configuration, (ii) the Head-Complement configuration, and (iii) the incorporation configuration.

If we look at the root interrogative contexts where the verbal element is said to raise from I to C and compare French to English we find the following paradigm: In English but not in French, a NP is licensed in subject position:

(85) a. *a jean parlé? (1989:5)
b. has John spoken?

The contrast can be analysed as follows. In affirmative clauses, nominative case is assigned by the verb in I before Spell-Out to the subject under a Spec-Head configuration. If the verb moves from I to C, however the case assignment configuration becomes a Head-Complement configuration (ie government). It must therefore be that French only assigns nominative case under a Spec-Head relation unlike English which is parametrised for both (i) and (ii). However if the NP in (85a) is replaced by a pronoun the root question is again well-formed:

(86) a-t-il parlé? (1989:5)
has he spoken?

Rizzi and Roberts propose in order to account for (85a) and (86) that French is parametrised for both (I) and (iii). In other words there are two ways an NP can be associated with a case feature: Under the Spec-Head configuration or by incorporation: "This association takes place in two ways: either by means of assignment of the feature from a head to the nominal, or by means of incorporation of the nominal into the head bearing the Case feature" (1989:5). In other words, in (86) above the pronoun raises to C and checks its case feature through incorporation to the verbal element in C.

If Rizzi and Roberts's (1989) proposal that StF is parametrised for two different case assignment mechanisms is generalised to all strong feature checking paradigms, then the

personne ne structure can be subsumed under the checking by incorporation analysis[57]. Under this hypothesis, the neg feature can be checked once by the XP *personne* under the Spec-Head configuration, and, once, through *ne*'s incorporation to the verb (iii). Furthermore the contrast that exists in NC dialects of English where the contraction *-n't* analysed as resulting from head incorporation to the verb (87a), and not the full lexical category (87b), is used, is also accounted for:

(87) a. no one hasn't seen him (Ladusaw 1996)

b. *no one has not seen him

[57]Although there is a problem with respect to the directionality of incorporation.

Chapter 4

The StF Association with Focus Structure *Ne...Que* XP

0. Introduction

In this chapter, I consider an alternative analysis for the structure of association with focus *ne...que* XP. In the standard analyses, the meaning of the whole expression which is equivalent to *only* is built up in the syntax by combining the individual meaning contribution of *ne* and *que*. As a consequence, these analyses rely on the hypothesis that *ne* is a negative operator in opposition to what I have argued in the previous chapter. Moreover, the specific locality constraints on *ne...que*XP mean that a construction particular account involving empty categories as presented by Dekydspotter (1993) or Azoulay-Vicente (1988) is required.

I propose here to subsume the *ne...que*XP construction of Standard French under Rooth's (1985;1992) theory of association with focus. I also argue that syntactically the *ne...que*XP construction functions essentially like the *only*XP construction. In order to motivate this analysis, I show that we can distinguish syntactically two types of *only*s and that each *only* can potentially contribute to the interpretation of association with focus in a way similar to that of *ne* or *que*. More precisely, I adopt Rooth's theory of association with focus as laid out in his (1985) thesis and (1992) paper, and argue that in the case of the *only*XP construction, when C, the free variable which the focus sensitive particle *only* takes as its argument, is constrained by the focus semantic value (FSV) either of the two parameters along which the FSV varies is fixed in the syntax. I propose that *only's* position determines either the scope of the focus particle[1], where we distinguish between a phrasal *only* and a clausal *only,* or identifies the focus constituent following proposals by Hoeksema and Zwarts (1991) and Konig (1991). Turning to *ne...que*XP, I show that both parameters along which the FSV varies[2] are syntactically identified by *ne* and *que*. In other words, the *ne...que*XP construction differs from the *only*XP construction in that stronger syntactic constraints which cannot be overridden narrow the choice of the FSV. Moreover, the *ne...que*XP construction shares

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[1] More precisely following Rooth's (1992) the abstract scope operator ~.

[2]Ie. The scope of ~ and the variable substituted for the focus.

properties not only with the association with focus structure of the *only*XP type, but also with the *ne...personne/rien* construction. I predict therefore that the syntactic constraints on the *ne...que*XP construction can be subsumed under the accounts provided for respectively the *only*XP and the *ne...personne/rien* constructions without relying on an otherwise unmotivated syntactic empty category.

1. The Semantics of Association with Focus

1.1. Expressing Focus

Focus can be expressed in different ways. For instance, in English, a focussed element is typically stressed. Following standard conventions, I represent stress with capital letters in (1). In (1) therefore the focus is *key*.

(1) he lost the KEY

Construction particular structures such as clefts in (2), pseudo clefts in (3) can also put a constituent into focus leading to interpretations roughly equivalent to that of (1) above:

(2) It was the key he lost

(3) what he lost was the key

Structures known as heavy NP shift are also analysed as resulting from focussing effects. In English, a direct object must be adjacent to the verb as illustrated in (4):

(4) a. he visits Rome often

b. *he visits often Rome

However, as a result of focussing rightward movement of the object can take place as the intervening adverb indicates in (5).

(5) they admired a lot MICHEANGELO'S LAST JUDGEMENT IN THE SISTINE CHAPEL

Other focussing strategies include fronting of the focus-phrase as in the Hungarian example below where the constituent *Janossal* in (6b) is in a dependency equivalent to that of overt wh-movement.

(6) a. levittema szemetet Janossal (Brody 1990:210)
down I took the rubbish John with
b. Janossal vittemle a szemetet
JOHNwith I took down the rubbish

In the next section, I propose to introduce the QR based approach to the treatment of focus and association with focus and its problem as discussed in Rooth's (1985).

1.2. A QR Based Approach

Turning to the representation of focus, Chomsky (1977) among others has proposed to generalise the movement analysis proposed for the Hungarian case to all cases of focus on the basis of weak cross over phenomena. Consider the following two sentences:

(7) a. the woman he_i loved betrayed $John_{i/j}$ (Chomsky 1977:200)
b. the woman he_i loved betrayed $JOHN_{*i/j}$

John is a free-expression in terms of binding theory and cannot be A bound. In (7a) *John* can be co-indexed with the pronoun *he* that precedes it. This indicates that the pronoun inside the subject relative clause in (7a) does not A bind *John*. However, as indicated by the indices in (7b), when *John* is focussed, it can no longer be coreferential with the pronoun *he*. This phenomenon can be put in parallel with the weak cross over effects which occur whenever a pronoun linearly precedes a wh-trace. As illustrated in (8) below the wh-trace cannot be co-indexed with a pronoun to its left:

(8) $*who_i$ did the woman $he_{*i/j}$ loved betray t_i ? (Chomsky 1977:199)

In other words, the focussed constituent in (7b) behaves as if it had moved similarly to the

wh-phrase in (8). From (7), Chomsky proposes that phrases marked in the syntax for a focus feature always undergo raising, but at a more abstract level of the syntax. In other words, at LF the derivation in (9a) yields the structure in (9b):

(9) a. I don't think that $John_F$ will win

b. I don't think that$[_{IP}$John$[_{IP}$ x will win]] or$[_{IP}$John$[_{IP}$ I don't think that x will win]]

The QR based approach to focus also extends to the case of association with focus. The focused phrase is assumed to raise and adjoin to the focus sensitive adverb at LF. Movement leaves a trace thus the structure obtained is a tripartite structure which can directly be mapped into a structure of first order quantification which is of the type quantifier, presupposition and nuclear scope:

(10) a. John only introduced Bill to Sue

b. John only[Bill [introduced t to Sue]] (Stechow 1991:44)

There are however some arguments against a LF raising account. Firstly, assuming that QR is a syntactic process, then we expect that a focus adverb such as *only/even* and the focus element it is associated with are subject to locality constraints. However this is not the case. In particular, the *only/even* XP construction is immune to the complex NP constraint.

(11) a. * what do you know a guy who does with bananas?

b. you can do lots of things with bananas : I even know a guy who SMOKES them

(Rooth 1985)

Unlike the case of overt wh-movement where the wh-element cannot be extracted out of a relative clause, *even* can be construed with the focus element inside it. Moreover, there is no *that*-trace effects (reduced to the ECP) in the case of the *only*...XP construction as can be seen by the difference in acceptability between (12b) and (12c). Wh-subject extraction is not permitted, but a focussed subject can be construed with *only*.

(12) a. who do I know that he is in love with t?

b. *who do I know that t is in love with him?

c. he only claims that BILL is in love with him

Secondly, on the assumption that the focussed phrase must be adjacent to *only/even* at some point of the derivation there is no clear way of explaining how multiple foci can be accounted for:

(13) I have only suggested that DOMINGO should sing "Tristan" in VIENNA but not that PAVAROTTI should sing it in SALZBURG (Bayer 1996)

Bayer (1996), following Rooth (1985), argues that in (13) we cannot treat the two foci DOMINGO and VIENNA as belonging to the same constituent which then raises to adjoin to *only*. On the other hand, if we adopt the post LF quantifying-in approach, which is not otherwise subject to syntactic constraints, then the multiple foci data constitutes the only argument against a raising account of the focus phrase.

The English data on focus and on association with focus is nevertheless also compatible with a non raising account of focus such as Rooth's (1992)[34].

In order to account for the role played by the overt syntax of the focus particle in the interpretation of association with focus, I rely on Rooth's (1992) semantic account of focus and association with focus. I propose therefore to introduce this account in the next section.

1.3. Rooth's (1992) Alternative Semantics[5]

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[3] Rooth (1996) reintroduces QR of the focus phrase in the light of the WCO effects. He argues that two types of QR should be distinguished: operator movement sensitive to island constraints and another type of operator movement insensitive to them.

[4]Although I do not discuss the issue here, the main argument in favour of a Rooth's style analysis is that QR which creates a tripartite structure of quantification is not compatible with an analysis of *only* as a quantificational adverb as proposed by de Zwart (1996) where *only* first argument is the VP p-set and its second argument the VP itself (ie. the set of proposition $[\alpha]^f$ and its second argument $[\alpha]^0$) since the QR representation only makes available the propositional set (ie what corresponds to Rooth's $[\alpha]^f$) and the focus value (and not the proposition containing it) unless we add an additional storage rule to retain the proposition we started with. Additionally, WCO effects related to focus are really dubious.

[5] Cf. Cornillon and Chao (1995).

In Rooth's framework a focussed phrase usually identified by a phonological stress is a variable to be interpreted in situ according to focus semantics first developed by Rooth in his (1985) thesis. The basic idea behind Rooth alternative semantics is that the denotation of a phrase α is the ordered pair $< [\![\alpha]\!]^o, [\![\alpha]\!]^f >$, where beside the usual denotation $[\![\alpha]\!]^o$ we have a focus semantic value $[\![\alpha]\!]^f$ where $[\![\alpha]\!]^o \in [\![\alpha]\!]^f$. Informally, where α is an S, the focus semantic value can normally be thought of as the set of propositions obtainable from the ordinary semantic value by making a variable substitution in the position corresponding to the focussed phrase. This is illustrated in (14) and (15) below, where (14b) is the set of propositions of the form 'John likes x', and (15b) the set of propositions of the form 'x likes Mary'.

(14) a. John likes $[\text{Mary}]_F$.

b. $[\![\text{John likes } [\text{Mary}]_F]\!]^f = \{\text{like } (j, y) \mid y \in E\}$, where E is the domain of individuals.

(15) a. $[\text{John}]_F$ likes Mary.

b. $[\![[\text{John}]_F \text{ likes Mary}]\!]^f = \{\text{like } (x,m) \mid x \in E\}$, where E is the domain of individuals.

It should be noted that the focus semantic value of a phrase does not in and of itself contribute anything to the truth conditions of a proposition, rather it makes salient a set of alternatives to the ordinary semantic value. So in a discourse situation where "Sue introduced Bill and Marie to John" it does not matter to the truth conditions of a sentence like (16) which element gets focussed.

(16) a. Sue introduced BILL to John

b. Sue introduced Bill to JOHN

(17) a. Sue only introduced BILL to John

b. Sue only introduced Bill to JOHN

However, these alternatives have some truth conditional effects when associated with a focus sensitive lexical item like *only*. Hence (17a) but not (17b) is true in the situation depicted above. The focus sensitivity of *only* in (17a) and (17b) is captured by introducing in its semantics a context free variable, call it C, whose semantic value is fixed to the focus

semantic value (FSV).

The meaning contribution of *only* in (15a) is represented by (18b), which says that if P is a property in a given set C and P applies to *Mary*, then P must be identical to the property expressed by the VP (ie. *only* takes sets of properties or propositions as its argument(s)).

(18) a. John **only** VP

b. $\forall P\ [P \in C \wedge P(j) \rightarrow p = VP']$

c. Focus association: $C = [\![VP]\!]^f$

Rooth (1992) also proposes to identify the set of alternatives made available by the introduction of the focus variable according the alternative semantics (1985) with an abstract operator '~' . The introduction of a distinct operator ~ means that *only* itself does not bind the free variable instantiated through the application of focus semantics. This, in turn, allows the identification of the FSV, to which C is identified, to be made independently of the syntax of the focus particle.

Rooth (1992) also considers how C is defined and to what extent C is constrained by the focus semantic value drawn from the syntactic derivation. In (8) above, we saw that a plausible initial solution is to identify C with the FSV itself (8c). More precisely, in example (19) below, we obtain the following interpretation:

(19) a. John only introduced $[\text{Bill}]_F$ to Sue.

b. $[\![\text{introduce } [\text{Bill}]_F \text{ to Sue}]\!]^f = \{\lambda x\ [\text{introduce } (x,y,s)] \mid y \in E\}$

c. $C = \{\lambda x\ [\text{introduce } (x,y,s)] \mid y \in E\}$

d. $[\![\text{John only introduced } [\text{Bill}]_F \text{ to Sue}]\!]^f =$

$\forall P[\ P \in C\ \&\ P(j) \dashrightarrow P = \lambda x\ (\text{introduce } x,y,s)]$

Following (18c), in (19c) the denotation of the context variable C is taken to be identical to the FSV obtained in (19b). (19c) tells us that C is the set of properties such that *y is introduced to Sue*. In (19d) *only* is restricted to domain C, whose semantic value is (19c). (19d) can be paraphrased as 'if John has a property of the form 'introducing x to Sue', it is the property 'introducing Bill to Sue'. Consider now (20), where as previously, the context variable is identified with the FSV:

(20) a. Mary only $[\text{likes}]_F$ Fred.

b. $C = \{\lambda x[R(x,f) \mid R: E \times E \Rightarrow \text{propositions}\}$

c. $\forall P[\, P \in C \;\&\; P(m) \rightarrow P = \lambda x\, (\text{like}\, (x,f)]$

In this case the truth value of (20c) will necessarily be false, since there are an infinite number of relations that can hold between *Mary* and *Fred*, for example living in the same planet or not being the same individual as the other. What we need here is additional constraints on C so that (20a) can be true. For instance we can constrain C such that of all the relations that hold between *Mary* and *Fred* we are only interested in the relations *like, be indifferent to* and *hate* (i.e., we appeal to the notion of pragmatic relevance to narrow the set C such that C={Mary likes Fred, Mary is indifferent to Fred, Mary hates Fred}). More generally, Rooth claims that because constraints of a pragmatic nature come into play when we set C, the FSV of an expression does not uniquely fix, but only constrains C. The semantic constraint in (18c) should be weakened to (21), where C is now a subset of the FSV of α under the presupposition that C contains at least two members: the ordinary semantic value of α ($[\![\alpha]\!]^o$) and a value distinct from $[\![\alpha]\!]^o$.

(21) $C \subseteq [\![\alpha]\!]^f$,

$[\![\alpha]\!]^o \in C$, and

$\gamma \in C$ and $[\![\alpha]\!]^o \neq \gamma$

Rooth (1992) also raises the question of whether in a truly general theory of focus a constraint such as (21) can be optional. Rooth's (1992) theory of association with focus is indeed perfectly compatible with an account where the context variable C, which the focus sensitive element of the type of *only* in English takes as its argument, is pragmatically defined. I assume however the weaker version of the theory which implies that C is constrained by the focus semantic value (FSV) and explain why this is relevant below.

1.4. Aims

The standard treatment of the *ne...que* XP construction stipulates that the overall meaning of the complex equivalent to *only* is derived from the individual meanings of *ne*, the negative operator and *que* an operator with the meaning of *other than*. It differs thus from the

treatment of the *only* XP where the semantics are built in on the unique focus operator *only*. I propose here to consider a possible implementation of the alternative semantics account suggested for the *onlyXP* construction to the *ne...que*XP construction. Although this move may appear an unlikely one I am going to show that it leads to some interesting results. In particular, the syntax of *only* and its contribution to the interpretation is equivalent to either that of *ne* or *que* following proposals by Hoeksema and Zwarts (1991) and Konig (1991). This, in turn, allows me to give a semantic account of *ne* and *que* that does not rely on the hypothesis that *ne* is a negative marker. Moreover, I can account for the specific locality constraints of the construction without having recourse to an ill-motivated syntactic empty category. I propose therefore to look at the properties of the *ne...que*XP construction and review previous accounts of it (Azoulay-Vicente 1988 and Dekydstpotter1993) before setting out to examine in details to what extent the constraints on the interpretation of association of *only* with focus can be derived from the syntactic distribution of the focus particle.

2. The *Ne...Que*XP Construction

I am going to briefly introduce the properties of the *ne...que* XP construction the meaning of which is equivalent to the *only* XP construction unlike its syntax. First, *ne...que* in association with focus involves a complex syntactic structure. Secondly, locality constraints are involved in the *ne...que*XP construction. These syntactical properties means that a combinatorial account of the construction which involves distinct operators is adopted in the semantics, and that empty categories are taken to be involved in the syntax. In particular, Dekydtspotter analyses the construction as involving the movement of a syntactic null OP, while Azoulay Vicente (1988) remarks that the locality constraints involved are similar to those of the *ne...personne/rien* construction, and should be subsumed under it; the additional constraints on the *ne...que* XP structure like the c-command requirement and the failure to extract out of PPs and NPs being accounted for by positing a base generated empty NP element.

2.1 The *Ne...Que*XP Construction: a Combinatorial Approach

In his review of the construction *ne...queXP* in French, Dekydspotter starts from the assumption that *ne...que XP* interpretation is equivalent to that of *only...XP*.

(22) a. Il n'est arrivé que Jean

b. Only Jean arrived

(22a)'s interpretation is equivalent to (22b), but the similarities end there. Firstly, syntactically the *ne...que*XP construction shows clear locality constraints unlike the *only*...XP construction. In particular, although according to Dekydspotter (23) is well-formed, (24) is not. Note that in (23) and (24) we are only concerned about the second occurrence of *que*, the first one being the French equivalent to the complementizer *that*.

(23) Jean ne dit qu'il verra que Lucie[6]
Jean only says that he will see LUCIE

(24) a. John only believes that pictures of LUCIE horrified her
b. *John ne croit que des photos que de Lucie l'ont horrifiée
John ne believes that photos QUE of Lucie her have horrified

These locality constraints appear to be comparable to A' movement constraints:

(25) *who does John believes that pictures of t horrified her?

Both (24b) and (25) are subject island cases. In (24b) *ne* cannot be construed with *que*XP and in (25) wh-phrase extraction is not permitted from inside a subject position. Other similarities with overt wh-movement include sensitivity to the specificity condition in (26) and inner islands in (27) which lead to severely degraded sentences in the case of adjunct wh-phrases.

(26) a. *Jean n'aime ma photo que de Pierre
Jean only likes my photo of Pierre

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[6] I disagree with Dekydtspotter that (I) is well-formed. In other words, the contrast is between (I) and (ii) below (cf. Azoulay Vicente (1988) for the same judgements):
(I) *Jean ne dit qu'il verra que Lucie
Jean only says that he will see LUCIE
(ii) Jean ne dit voir que Lucie
Jean only says seeing LUCIE

b. *de qui Jean aime-t-il ma photo?
of whom Jean does not like my photo

(27) a. *Jean n'a beaucoup mangé que de(s) bonbons
Jean only ate a lot of sweets

b. *combien a-t-il beaucoup conduit de voitures?
how many cars has he driven a lot?

However, although the locality constraints involved are similar to those of wh-movement, important differences between the two remain.

(28) a.*Jean ne dit qu'il croit qu'elle a vu que Lucie
Jean only says that he believes that she saw LUCIE

b. Jean ne pense avoir entendu crier que la Marseillaise
Jean only thinks having heard shouted the MARSEILLAISE

(29) a. Jean qui pense-t-il qu'elle croit que Pierre a vu t?
who does Jean say that she believes that Peter has seen t

b. Jean, que pense-t-il avoir entendu crier t ?
what does Jean think having heard shouted t

Whereas in (28) the degree of embedding of *que* matters in the case of [+tns] clauses leading to the ill-formedness of (28a); *que* can associate with *ne* across [-tns] clauses to give a convergent derivation in (28b). In the case of overt wh-movement no such asymmetry exists and the [+tns] and [-tns] derivations in (29) are equally good. Moreover, Dekydspotter noted that although locality constraints are clearly at work it appears unlikely that the focussed constituent itself raises; this hypothesis being incompatible with the following data:

(30) a. Jean n'a bu que de la bière
Jean has only DRUNK beer

b. *bu de la bière, Jean a
drunk beer Jean has

(31) a. Jean ne veut que boire de l'eau
Jean only wants to DRINK water

b. *boire de l'eau, Jean veut
drink water, Jean wants

In StF, it is impossible to extrapose a verb phrase as in the (b) examples, but the same VP can enter in construction with *ne...que* in (29a) and (31a). In other words, it is unlikely that it is the focussed phrase which undergoes covert movement.
Secondly, the *ne...que* XP construction is made up of two distinct morphemes one of which is often taken to be a negative operator. On the basis that *ne* is standardly associated with negation, or more generally downward entailing expressions, Dekydspotter argues that the constituent *ne* which contributes to the interpretation of (32a) is a negative constituent.

(32) a. il n'aime pas Marie
He does not like Marie
b. il craint qu'elle ne réussisse
he is afraid that she will succeed

Azoulay Vicente also shows that the *ne...que* XP construction functions like the negative structures of the *ne...personne/rien* type in that it licenses negative concord readings. In (33b), *ne...que* licenses a NC reading of the intervening negative concord term *jamais*.

(33) a. personne n'a jamais rien dit
no one has ever said anything
b. il n'est jamais arrivé que Jean
Only Jean ever came

These findings can be put into parallel with the meaning of *only* in the "*only* b (Pb)" which can be decomposed as "there is no x other than b such as P(x)" where b is a name. On the assumption that the *ne...que*XP construction looks like it is derived from the gradual ellipsis of a more complex construction as suggested by (34):

(34) a. Paul n'aime personne d'autre que Marie
Paul does not like anyone other than Mary
b. Paul n'aime personne que Marie

Paul does not like anyone other than Mary

c. Paul n'aime que Marie

Paul does not like anyone other than Mary

then the above syntactic facts strongly favour a semantic account where the *ne...que* interpretation results from the combination of two operators, *ne* being the negative operator and OP *que* the equivalent of the QNP *other than*[7]. Nevertheless, the *ne...que* XP structure cannot be the ellipsis of a more complex structure of the type "*ne...personne d'autre que* XP since they do not behave alike when prepositions are involved:

(35) a. Paul ne pense à personne d'autre que Marie

Paul thinks of no one else apart from Mary

b. *Paul ne pense à personne que Marie

Paul thinks of no one else apart from Mary

c. *Paul ne pense à que Marie

Paul thinks of no one else apart from Mary

Inversing the process gives us the same results. Whereas the association with focus structure *ne...que*XP in (36a) is well formed, its counterpart with *personne* in (36b) and *personne d'autre* in (36c) are not.

(36) a. Paul ne s'asseoit que près de Marie

Paul only sits near Mary

b. *Paul ne s'asseoit pres de personne que près de Marie

Paul sits near no one except near Mary

c. *Paul ne s'asseoit près de personne d'autre que près de Marie

Paul sits near no one other than near Mary

Assuming the ellipsis of *autrement* also makes the wrong type of prediction. (37a) and (37b) turn out to be contradictory statements.

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[7]Not a logical quantifier, however: [x other than a](Y)={ [X]∩[Y]=a} where a is a name. (Cf. Lappin (1997) on *except* phrases as QNPs).

(37) a. ils ne peuvent pas réussir autrement qu'en travaillant beaucoup
they cannot succeed except by working hard

b. ils ne peuvent pas réussir qu'en travaillant beaucoup
they cannot succeed by only working hard

This means that *que* in the structure of association with focus must carry the meaning of *other than*. Under this hypothesis, the sentence (22a) I started the discussion with asserts that there exists no set of contextually relevant individuals such that *they are not Jean and arrived*, and entails that *Jean arrived*. Following Dekydspotter's analysis (Azoulay Vicente's proposal follows the same idea) then in logical notation we have:

(38) $[\text{que } \alpha]] \text{-->} \lambda\beta\lambda x[\ C(x)\ \&\ x \neq \alpha\ \&\ \beta(x)]$

Applied to (22a):

(39) arrive[que Jean]]

$\lambda\beta\lambda x[\ C(x)\ \&\ x \neq j\ \&\ \beta(x)]\ (\lambda y[\text{arrive}(y)])$

$\Rightarrow \quad \lambda x[\ C(x)\ \&\ x \neq j\ \&\ [\ \lambda y(\text{arrive}(y))]\ (x)]$

$\Rightarrow \quad \lambda x[\ C(x)\ \&\ x \neq j\ \&\ \text{arrive}(x)]$

The VP in (39) represents the set of individuals distinct from John who arrive and have the property C. (39) then combines with the negative operator *ne* to give the interpretation of (22a):

(40) il n'est arrivé [que Jean]]

$\lambda P\ \neg\exists u\ P(u)\ (\lambda x[\ C(x)\ \&\ x \neq j\ \&\ (\text{arrive}(x))])$

$\neg\exists u\ \lambda x[\ C(x)\ \&\ x \neq j\ \&\ (\text{arrive}(x))](u)$

$\neg\exists u\ [\ C(u)\ \&\ u \neq j\ \&\ (\text{arrive}(u))]$

The operators composition account however raises some problems both in terms of the semantics and the syntax. Firstly, assuming that *ne* is an inherent negative marker goes against the evidence that I have presented in Chapter 3 in which I argue that in 'normal' negative sentences the negative force is contributed by *pas*, the role of *ne* being limited to

that of an expletive. Additionally, the *ne...que* XP structure does not license NPIs in the same way that the *ne...personne/rien* construction does[8]. In particular, although the NPI *de* can be licensed its degree of acceptability in (41b) is lower than in the negative structure in (41a):

(41) a. Lucie n'a donné de/?des livres à personne
Lucie has not given some/any book to anyone
b. Lucie n'a donné des/?de livres qu' à Nicole
Lucie has only given some/any book to Nicole

The case of the NPI *qui que ce soit/quoique ce soit* leads to even starker contrasts. The structure *ne...queXP* cannot license *qui que ce soit* in (42a) although the *ne...pas/personne/rien* can in (42b&c).

(42) a. *je n'accueillerai qui que ce soit que lors du seminaire
I will only welcome anyone DURING THE CONFERENCE
b. je n'ai rien donné à qui que ce soit
I have not given anything to anyone
c. Je n'ai parlé à qui que ce soit de rien[9]
I have not spoken to anyone about anything

Secondly, in the syntax, the operators composition should fall under the general account of A' dependencies, but such an account does not fully capture the locality constraints at work.

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[8] This contrasts at first view (eg. subject to further research on the difference between NPIs and NC terms) with the *only* XP construction which Szabolcsi and Zwarts argue give rise to weak island effects although *only* (and *regret*) is non monotonic. They add in a footnote (243:1993): "This may be more of a problem for NPI theories than for us: *only* and *regret* are also NPI licensers and non monotonic". Horn (1997) also argues that although *only* is upward entailing to the argument to its right it can license the NPI *any*:
(i) only the students who had ever read about polarity passed (1997:28)
I find his argument weaker since a wh-phrase intervenes between *only* and *any* in all the examples he discusses.

[9] (i) below is in fact better
(i) Je n'ai parlé de rien à qui que ce soit
More generally, the linear order NC term-NPI is preferred to that of the NPI -NC term one.

Firstly, it does not explain why *que* is not licensed in subject position similarly to other quantifiers, NC terms or wh-in-situ.

(43) a. *que Jean n'est arrivé
only Jean arrived
b. chaque invité connait Helen
each guest knows Helen
c. qui connait Helen?
who knows Helen?
d. personne ne connait Helen
no one knows Helen

Secondly, some discrepancies arise in the case of extraction out of prepositional phrases. *Que* cannot be construed with *ne* across a preposition in (44) and (45) although a wide scope interpretation is possible with both wh-in situ elements and quantifiers as shown below:

(44) a. *Jean ne téléphonera à que Marie
Jean will only phone Marie
b. Jean téléphonera à chaque invité
Jean will phone each guest
c. Jean téléphonera à qui?
to whom will Jean phone?
d. Jean ne téléphonera à personne
Jean will not phone anyone

(45) a. *Jean ne sera (probablement) là pour que Marie
Jean probably will only be here for Marie
b. Jean sera (probablement) là pour qui?
for whom will Jean probably be here ?
c. Jean sera (probablement) la pour chaque invite
Jean probably will be here for each guest
d. Jean ne sera (probablement) là pour personne
Jean probably will not be here for anyone

Consequently, Dekydtspotter (1993) and Azoulay Vicente (1988), whose analyses I review below, need to rely on a construction specific analysis of the *ne...queXP* structure in order to fully capture the locality constraints at work.

2.2. Dekydtspotter (1993)

As seen above, Dekydtspotter argues that one of the difference between the *only*XP construction and the *ne...que*XP construction is the absence of locality constraints in the first case and their presence in the second. Hence some syntactic account must be provided for the *ne...que*XP structure. The contexts in which a relation between *ne* and *que* cannot be established and those where a wh-phrase cannot be extracted being similar the *ne...queXP* construction must involve some kind of A' dependencies. However, this was shown to be insufficient to account for the locality constraints which hold of the *ne...queXP* construction in the syntax. Moreover, evidence was presented against the standard account where it is the focussed phrase which undergoes movement. Dekydtspotter therefore proposes that we are dealing with null OP movement. More precisely, the constraints on *ne...queXP* results from a process of chain composition between two operators in situ namely *ne* and a null operator identified by *que*. Chain composition makes two requirements on the operators involved. *Ne* should c-command the null operator and no barrier should intervene. (43) therefore follows from the absence of c-command by *ne* of the null operator as required by chain composition.

(43) *que Jean est arrivé
only Jean arrived

Whenever a barrier intervenes the null operator can undergo movement (cf. Stowell (1986)), but null operator movement is much more restricted than its overt counterpart. Extraction out of subject and adjunct positions or movement across a [+tns] IP is not permitted. Consider in particular the tough adjective examples in (47) for which the null operator movement analysis (Stowell 1986) was developed:

(47) a. this car is easy[Op[PRO to believe[Betsy to have fixed t]]]
b. *Betsy is easy [Op[PRO to expect[t fixed the car]]]
c. *today will be easy[Op[PRO to catch the bus t]]

d. *this car is hard[Op[PRO to claim[Betsy fixed t]]]

Traces of movement must be properly governed. In subject and adjunct positions theta government is not available therefore the subject and adjunct traces must be antecedent governed (following the disjoint ECP formulation). Assuming as Stowell does that elements which are part of a chain headed by a null operator cannot antecedent govern their trace, then the ungrammaticality of (47b) and (47c) follows. On the other hand, the mild ungrammaticality of extraction out of [+tns] IP is accounted for in terms of subjacency. In (47d) successive movement of the null operator is ruled out by the failure of the Comp trace to be antecedent governed as seen in the cases of the subject and adjunct traces above. Instead the null OP undergoes long movement. But under the assumption that [+tns]IP unlike [-tns]IP is a bounding node, then the operator is one-subjacent to its trace leading to subjacency effects. Turning back to (28), the difference between (28a) and (28b) is accounted for by subjacency. In (28a) *que* must undergo long movement crossing two bounding nodes whereas in (28b) no bounding node intervenes and composition in situ can take place:

(28) a. *Jean ne_i dit[OP_i qu'elle croit[$_{CP}$ qu'il a vu t_i que Lucie]
Jean only says that she believes that he has seen LUCIE

b. Jean ne_i dit[OP_i PRO avoir entendu[PRO crier t_i que la Marseillaise]
Jean only says having heard shouted the Marseillaise

Dekydspotter's claim that the *ne...que* construction involves null operator movement and chain composition is problematic in at least two respects. Firstly, what the null operator analysis, but not the wh-chain/movement analysis captures are the Tense effects. However, this is done at a cost since Stowell's null OP analysis suffers the same drawbacks than the other null OP designed to account for adjectival object to subject raising and parasitic gap structures. It is a construction specific analysis. In particular the 'chain composition' account raises a learnability problem as discussed by Chomsky (1982), and, similarly, Brody (1993) argues that "the optimal theory should take parasitic gap structures to involve only one chain" (1993:4). Moreover, generalising this analysis to the *ne...que* construction leads us to

draw some unwanted parallels between a construction of the *easy to please* type[10] which involves empty (argument) categories motivated on independent grounds and one which does not necessarily do so, the *ne...que*XP construction. Finally, Dekydspotter's analysis also misses out on the generalisation that the *ne...que*XP construction is similar to the *ne...personne/rien* construction as argued by Azoulay-Vicente (1988). I turn to Azoulay Vicente's (1988) analysis in the next section.

2.3 Azoulay Vicente (1988)

Azoulay Vicente (1988) looks at the categorial status of the element *que* (is it a Comp or a preposition?), and the locality conditions which govern the *ne...que*XP construction stressing their similarities with the *ne...personne/rien* construction.

Firstly, Azoulay-Vicente argues that the *que* constituent in the structure of association with focus is a preposition. He shows in particular that the focus particle *que* does not behave similarly to the complementizer *que* and the comparative *que* with respect to the tns vs -tns clauses distinction. In particular, the complementizer *que* cannot select -tns clauses whereas the focus particle *que* can and vice versa in the case of the tns clauses.

(48) a. Marie veut que Paul parte
Marie wants Paul to leave

b. *Marie ne veut que Paul parte
Marie only wants that Paul leave

c. *Marie veut que partir
Marie wants to leave

d. Marie ne veut que partir
Marie only wants to leave

(49) constitutes additional evidence against treating *que* as a complementizer. Doubling the *que* elements in tns clauses is not permitted in both cases, but there is a contrast in grammaticalness when the complementizer *que* is not realised. The comparative structure

[10]A similar argument can be made when comparing the *ne...que* construction to parasitic gap constructions.

becomes grammatical again unlike the association with focus structure. In other words, comparative *que* appears to have a complementizer status that the focus particle *que* lacks.

(49) a. *j'aime mieux que Marie lise que qu'elle ne joue
I prefer that Marie reads rather than that plays
b. j'aime mieux que Marie lise qu'elle ne joue
I prefer that Marie reads rather than plays
c. *je n'aime que que Marie chante
I only likes that Marie sings
d. *je n'aime que Marie chante
I only likes Marie sings

Azoulay Vicente therefore suggests attributing the category of preposition to the focus element *que*[11] as a default characterization. This hypothesis is supported by the data on pronouns and co referentiality. Direct object pronouns are not co referential with the subject unlike object pronouns inside a PP or a *que* phrase.

(50) a. Pierre$_i$ l'$_{*i/j}$ a vu
Pierre has seen him
b. Pierre$_i$ commencé par lui$_i$
Pierre starts with himself
c. Pierre$_i$ parle de lui$_i$
Pierre talks about himself
d. Pierre$_i$ a confiance en lui$_i$
Pierre trusts himself
e. Pierre$_i$ n'aime que lui$_i$
Pierre only likes HIMSELF

Secondly, Azoulay Vicente points out that the *ne...que*XP construction is sensitive to the

[11]Additionally, *que* as a preposition allows Azoulay Vicente to account for the impossibility of extracting material out of a *que* phrase under the assumption that a PP is a barrier to antecedent government (cf. section 4.2 for a different explanation).

tense island and that the same holds of *ne...personne/rien*[12] construction as illustrated from (51) to (53).

(51) a. *je n'ai dit que Marie avait rencontré personne
I haven't said that Marie had met anyone
b. je n'ai dit que Marie avait rencontré que Paul
I have only said that Marie had met PAUL

(52) a. je n'ai dit avoir rencontré personne
I haven't said meeting anyone
b. je n'ai dit avoir rencontré que Paul
I have only said meeting PAUL

(53) a. *je n'ai exigé que Marie voit personne
I haven't required that Marie should meet anyone
b. *je n'ai exigé que Marie voit que Paul
I have only required that Marie should meet PAUL

Azoulay Vicente therefore proposes an account in terms of A' dependencies equivalent to that of the *ne...personne/rien* construction. However, additional constraints as discussed above hold in the case of the *ne...que*XP construction. Firstly, the element *que* is not licensed in subject position unlike *personne/rien*.

(54) a. *que Marie ne connait Helen
only MARIE knows Helen
b. personne ne connait Helen
no one knows Helen

Secondly, we have seen that whereas *personne/rien* patterns similarly to quantifiers and wh-in situ, there are stronger restrictions on the use of *que* within adjuncts involving prepositions.

(55) a. *Jean ne téléphonera à que Marie

[12] Some speakers also accept (53) with a volitional verb.

Jean will only phone Marie

b. Jean ne téléphonera à personne

Jean will not phone anyone

c. *Jean ne sera (probablement) là pour que Marie

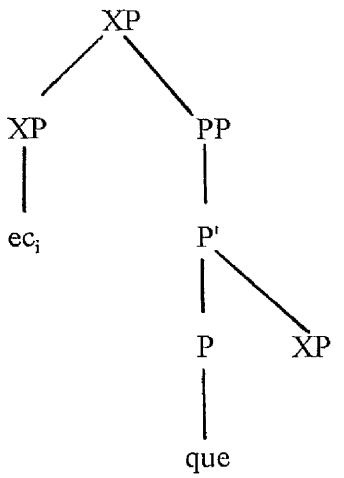
Jean probably will only be here for Marie

d. Jean ne sera (probablement) là pour personne

Jean probably will not be here for anyone

To account for (54) and (55) Azoulay Vicente proposes that a base generated empty NC term with the meaning of *personne/rien* adjoins to the prepositional phrase headed by the *que* element which carries the meaning of *other*. The underlying structure is given below:

(56)



By positing an empty category (EC), Azoulay Vicente can now rely on the ECP to account for the restrictions on the *ne...queXP* construction which do not apply to the *ne...personne/rien* structure. Empty categories on the disjoint formulation of the ECP must be either theta governed or antecedent governed where the minimal requirement on antecedent government is co-indexation. Azoulay Vicente proposes that the EC is co-indexed with *ne*, and as the result of the incorporation of *ne* to Infl, the verb. The resulting derivation including traces of V movement for the *ne...que*XP structure is given below:

(57) a. il n'aime que Marie

b. il $[_{INFL}$ ne$_i$ aime$_i[_{VP}$ t$_i$ $[_{NP}$EC$_i$ $[_{PP}$que Marie]]]

As seen above, there are two constraints which apply in the case of the *ne...que*XP but not of the *ne...personne/rien* construction and must be accounted for in terms of the ECP: *que*XP never occurs in subject position and *que* cannot be construed with *ne* across a preposition. Given the general characterization of subject positions as positions which are not theta governed, then the subject EC which heads the *que*XP segment (or its trace under a movement account) must be antecedent governed. Suppose that *ne* cannot antecedent govern it, then we have an explanation for the ill-formedness of (54) reproduced below:

(54) *EC que Marie ne connait Helen
only MARIE knows Helen

The EC in (54) is neither antecedent governed nor theta governed. The same disjunctive formulation of the ECP allows us to explain the ill-formedness of structures like (58). Following independent proposals (eg Kayne 1984[13]) French prepositions selected by the verb are not governors, therefore the EC in (58) is not governed by its preposition. Assuming that PP nodes are barriers for antecedent government, then antecedent government cannot take place either leading to the ill-formed derivations (58a) and (58b)

(58) a. *il n'est venu dans EC que le bar
he came in only the bar
b. *il n'a parlé à EC que Hélène
he spoke to only Helen

In conclusion, Azoulay-Vicente's proposal integrates the *ne..que*XP construction into the more general characterization of the *ne...personne/rien* structure, but similarly to Dekydtspotter's analysis, an EC is introduced simply in order to account for the construction specific c-command requirement and the syntactic constraint which does not allow dependencies to be established from inside a prepositional phrase. An alternative analysis of the *ne...que*XP construction is therefore needed.

[13] "In French, P and V do not govern in the same way; but in English they do (that is in English P can govern structurally as well)." (Kayne 1984:116).

2.4. The *Ne...Que*XP Construction and Alternative Semantics: an Overall Assessment

The analysis of the *ne...que*XP construction which I pursue here does not involve empty categories and reduces the constraints of the *ne...que*XP construction to the more general constraints of the structures of association with focus of the *only/nur*XP type while retaining the assumption that the Standard French construction functions like the *ne...personne/rien* structure in the sense that they both involve A' chain dependencies. It is based on Rooth's alternative semantics framework. This allows me to dispense with the strictly combinatorial account above where *ne* is a negative operator although there is no conclusive evidence to back up this claim.

Moreover, the locality constraints between *ne* and *que* do not have to be derived from a QR operation motivated by the semantics of the construction, but instead can be driven by either a morphological requirement such as the checking of a feature (Chomsky 1995), or FI, in line with the expletive analysis of the *ne...personne* structure given in chapter 3. Additional syntactic constraints on the distribution of *ne* and *que* are derived from the comparison of the *ne...que*XP structure with the *only*XP construction without having recourse to empty categories. Since *ne* and *que* jointly contribute to the identification of the focus semantic value (FSV), then I predict a lesser degree of freedom at the level of the expression and the interpretation of association with focus than that which occurs in the case of the *only*XP construction. I propose first to look at the English *only* XP construction in order to explain how the overt syntax of *only* constrains the interpretation of the association with focus structure.

3. *Only*XP/XP*Only* and *Only*...XP

In the first part of this section, I introduce some elements of the syntax of *only*. Work by Hoeksema and Zwarts and Konig shows that it is possible to distinguish two types of *only* in the syntax according to their distribution. I also show that the overt distribution of modifiers (*not*), but not determiners (*no*) is said to reflect their scope. The question is whether this observation is relevant to the syntax of *only*. I start by the basic case where it is assumed that *only* placement delimits the scope of the particle which is invariably clausal (or sentential) in line with the VP-modifier analysis of *only* given in Rooth's (1985: chapter 1) (3.2). Turning to adjacent *only*, there is no longer any direct link between the scope of

the focus particle *only* and its placement in the overt syntax. QR can be assumed to reestablish the appropriate configuration at another level of the derivation. Alternatively, an abstract operator invisible to the syntax can be posited to mark the scope of the particle *only* independently of its overt syntax. Two separate analyses (Hoeksema and Zwarts 1991 and Konig 1991) have investigated a different hypothesis. The syntactic distinction between adjacent vs non-adjacent *only* can be mapped onto an interpretive difference. Hoeksema and Zwarts (1991) propose that similarly to constituent negation, the overt position of adjacent *only* indicates its scope which is phrasal. Konig (1991), on the other hand, proposes that adjacent *only* plays the same role in the syntax than stress in the phonology. It identifies the focus phrase. Given the data on adjacent *only*, it seems that both Konig and Hoeksema and Zwarts are partially right. I propose that the interpretation of *only* in association with focus varies along two parameters and that the overt syntax of *only* actually determines at any one time either its scope or focus, but not both. I therefore argue that indeterminacies arise in the interpretation of *only* in association with focus.

3.1. Background

3.1.1. The Syntax of *Only*XP/XP*Only* and *Only*...XP

In the case of the *only*XP construction, we can distinguish between *only*XP (or XP*only*) and *only*...XP where the XP is the focussed constituent. This distinction follows from the observation that the syntactic properties of a focus particle like *only* when it is adjacent to its focus are distinct from those of *only* when it is separated from the focussed element (Hoeksema and Zwarts 1991, Konig 1991). In particular, when adjacent to its focus *only* can either precede or follow that constituent:

(59) a. she lied only for Nixon (Hoeksema and Zwarts 1991)
b. she lied for Nixon only

However, when the focus adverb is separated from the focused material then the reverse relation holds. *Only*, as illustrated below must precede its focus.

(60) a. *the POPE has only permitted this practice (Hoeksema and Zwarts1991)

b. the pope has only PERMITTED this practice

c. the pope has only permitted THIS practice

The reverse can be observed of the focus particle *even*. For instance, whereas adjacent *even* can only follow its focus in (61):

(61) a. even then Nixon lied (Hoeksema and Zwarts 1991)

b.*then even Nixon lied

non adjacent *even* allows both sequences:

(62) a. the POPE has even permitted this practice (Hoeksema and Zwarts 1991)

b. the pope has even PERMITTED this practice

c. the pope has even permitted THIS practice

The empirical generalisations is that syntactic constraints on the realisation of *even/only* vary according to whether they are adjacent or not to their focus.

The next question is whether the syntax of *only* constrains interpretation, and more precisely whether the above syntactic distinction between two types of *only* is at all relevant to it. I propose first to set some background to the discussion by looking at the characterisation of the elements *no* and *not* which are standardly distinguished both in terms of their semantics, and according to how their scope properties are signalled in the syntax.

3.1.2. A Note on the Semantics and Scope of Modifiers vs Determiners

Elements such as *not* and *no* are distinguished in the semantics in terms of the number of arguments they take. *Not* is an unary operator which takes one argument whereas *no* is a binary operator which takes two arguments. Unary operators work as modifiers which take an argument of type X and give you another element of the same type X (map X into X). For instance, *not* is standardly defined as a function from t to t but it can also takes as arguments predicates of type <e,t> or < <e,t>, <e,t>>. A determiner like *no* on the other hand specifies a relation between two sets (ie. elements of type <e,t>). In other words, it is a function from sets to sets to truth values (<<e,t>, <<e,t>,t>>). However, this straightforward distinction

is somehow blurred in the case of *only*[14]. Adverbs also constitute an heterogeneous category of elements which are analysed as either binary or unary operators. For instance, predicate adverbs like *quickly* are modifiers whereas VP adverbs like *nowhere* similarly to sentential adverbs are taken to be quantificational elements[15].

Turning to the syntax of modifiers vs determiners, a distinction between say *no* and *not* is standardly made on the basis of their scope properties in the overt syntax (Williams 1994). First, the scope of the negative marker *not* is taken to correspond roughly to its c-command domain in the overt syntax: "the linear order of negation (adverbs and auxiliary verbs) determines their scope as mediated structurally via c-command" (Ernst 1992:136).

Furthermore, *not* is characterized either as a constituent or a sentence modifier depending on which type of constituent it adjoins to. For instance, *not* in (63a) adjoined to the tense auxiliary corresponds to sentential negation whereas constituent negation *not* as in (63b) (left) adjoins to any other constituent provided that it has a "predicative" function. In other words, (63c) is ill-formed because the constituent *in my car* is not a predicate.

(63) a. John did not seem sad

b. John seems not sad[16]

c. *you can do that not in my car

This distinction is sometimes mapped onto two (categorially) distinct markers; standardly the head of the NegP *not* and the adverbial constituent *not*. Klima (1964) also suggests that this distinction indicates that different scopes are involved. For instance, the scope of *not* in (63b) is the constituent *sad* to which it is adjoined. Potential problems arise however. Firstly,

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[14]The question is whether *only* truly is a VP modifier as proposed by Rooth who analyses *only* as a unary operator over VP p-sets) or a binary one (*only* has been argued to be a det (Meits: 1991, 1996), a quantificational adverb taking events as arguments (Bonomi and Casaleno 1993) and similarly in de Swart's (1996) who takes the focus as well as the VP to constitute the arguments of *only* thus making the identification of the focus phrase directly relevant to the interpretation of *only*).

[15] Sentential adverbs raise the additional question of how their arguments should be identified in the syntax while retaining a compositional account of their semantics(see De Swarts 1996).

[16]Similarly (i) and (ii):

(i) John not knowingly upset Mary

(ii) not a soul was dancing

Williams remarks "that immediate constituency [of negation] does not fully determine its ultimate scope" (1994:171) on the basis of the (mainly controversial) subject-auxiliary inversion (SAI) cases:

(64) a. ???not sad did John arrive

b. ???not in my car can you do that[17]

c. ???not often did they come...

However, as the grammaticalness judgements above indicate, SAI is not compatible with constituent negation. For instance, the ill-formed (63c) remains ill-formed when placed sentence initial as in (64b), although a sentence negation reading of the sentence as in (65) below is fine:

(65) you cannot do that in my car

The same can be said of (64a). When in a sentence initial position, the constituent negation reading of (66) is preferred as the equivalent derivation without SAI below indicates.

(66) not sad, John arrived

Secondly, Mc Cawley (1991) argues that contrastive negation of the type "not X but Y" does not always involve metalinguistics negation readings[18], but that constituent negation can have clausal or even sentential scope. For instance, although negation in (67) below c-commands the constituent *tea*, its scope domain is ambiguous between the clausal (67a) and sentential (67b) reading.

---

[17]With *even* not can have sentential scope:
(I) not even in my car can you do that.

[18] I set aside the metalinguistics use of negation. For instance sentence negation in (I) is argued to have scope over the stressed constituent *in my car* rather than the sentence.
(I) you cannot do that IN MY CAR
For a different analysis cf. Williams who proposes that "negation simply has sentential scope [].The sense that it is the PP that is "negated" derives from the fact that [] the PP is the focus of the sentence, and the sentence carries a presupposition that *you can do that somewhere*" (1994:171) .

(67) the doctor has recommended to drink not tea but coffee

a. the doctor has recommended not to drink tea but coffee

b. the doctor has not recommended to drink tea but coffee

Most English speakers disagree however that this is the case[19].

In conclusion, the standard hypothesis is that the negative marker *not* overtly indicates its scope in terms of constituent direct command (with some refinements in Williams's 1994) with the option of a local scope construal.

This treatment of the scope of negation must be contrasted with that of *no*. Whereas the scope of the negative marker *not* can be more or less derived from its overt position, the scope of *no* is not immediately made available by the syntax. *No* behaves similarly to determiners which do not tell us anything about their scope, but instead appear to identify their domain of quantification (cf. De Mey 1996). This means that although under a generalised quantifier analysis an in situ interpretation of the QNP is possible, the wide scope interpretations still require us to posit a covert syntactic operation like QR or even a post syntactic one like quantifying-in.

As argued by Ernst (1992), scope interactions with other operators also indicate that we should distinguish between *not* and *no* in the syntax. In particular, *not* is unlike determiners whose scope taking properties (interactions with other quantifiers) are constant across languages. For instance, in English, the scope of *not* can vary according to the type of lexical modal involved. Thus we have the following alternation between sentence negation and modals in English:

(68) Ed could not have foreseen her collapse (Ernst 1992:136)

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[19] In Standard French the distinction is clearer as it is syntactically encoded: on the constituent negation reading *ne* is not selected.

(I) Le docteur a recommandé de boire pas du thé mais du café
the doctor has recommended to drink not tea but coffee
Le docteur n'a pas recommandé de boire du thé mais du café
the doctor has not recommended to drink tea but coffee
Le docteur a recommandé de ne pas boire du thé mais du café
the doctor has recommended not to drink tea but coffee

(69) untrained personnel must not touch the red button

Negation takes wide scope over the modal as in (68) or narrow scope with respect to it (eg. (69)). However, in German sentence negation has scope over what is the German equivalent of English *must* in (69).

(70) a. ich muß gehen
I must go
b. ich muß nicht gehen
I do not have to go

As a result, the standard assumption which takes covert syntactic operations to be natural language universals must be dropped in order to account for the data above.
Nevertheless, there does not always exist a direct mapping between the unary vs binary operator distinction and their syntax. Adverbial quantifiers are a case in point. Whereas some quantificational adverbs have their domain of quantification clearly identified in the syntax (eg. *nowhere/everywhere*) others like *always* do not. For instance, although we can infer from the context that *always* in (71) quantifies over days, its argument is not made explicit in the derivation (cf. van der Does and van Eijck 1996:15).

(71) dinner is always served at six p.m. here

In fact, the quantificational *always* tends to receive the same syntactic analysis than the modifier *not* (cf. Williams 1994 and Ernst 1992). In other words, the scope of quantificational adverbs like *always* is more or less transparently indicated by its overt syntax in contrast with the class of quantificational adverbs of the *nowhere/everyday* type.
In conclusion, although we have seen that the way scope is signalled (if at all) in the syntax does not necessarily follow from the modifiers and determiners distinction, there is a clear case for distinguishing *not* from *no* under these terms. In the following section, I propose to investigate whether *only*'s syntax pattern more like that of *not* or *no* in constraining the interpretation of *only* in association with focus. I take Rooth's alternative semantics as a basis for the discussion and assess his syntactic analyses (1985;1992) of *only*...XP and *only*XP as

well as Hoeksema's and Zwarts's (1991) and Konig's (1991).

3.2 *Only*...XP: The Basic Case

In Rooth's (1985;1992), *only*...XP is treated as the basic case both in terms of its semantics and its syntax. In the semantics, it is an operator which takes as argument(s) VP-p sets (sets of properties cf. de Mey 1995: 270) or sets of propositions. In the syntax, the standard hypothesis is that the scope of the focus particle in the *only*...XP construction corresponds to the overt position of the focus particle itself similarly to sentence or clausal negation. This hypothesis is based on the behaviour of *only* in the *only*...XP construction which always appears between the auxiliary and the verb and whose scope is invariably clausal. In other words, if we define the scope domain as a direct function of the syntactic (ie c-command) domain of *only* (Bayer 1996:13):

(72) The syntactic domain of an element X is the phrase YP which is c-commanded by X

then the scope domain of *only* in the *only*...XP construction is a direct function of the syntactic domain of overt *only*. I propose to look at some examples illustrating this claim. First, I set aside the question of whether there is evidence to say that the phonological process of stress leads to a syntactical identification of focus. Assuming that it does[20], the focussed element is *syntax* in (73a) and (73b) and it bears a focus feature f. Moreover, both sentences in (73) receive a (non-ambiguous) reading with a distinct interpretation each. The first one is interpreted as "we should study no subject other than syntax" whereas in the second interpretation "any combination of subjects can be studied as long as syntax is one of them".

(73) a. we are required to only study SYNTAX
b. we are only required to study SYNTAX

The two distinct interpretations are due to scopal effects. The first interpretation corresponds to an interpretation where *only* has scope over the lower VP and the second over the matrix

[20]I revise this assumption in section 3.5.

VP. In other words, each of the relevant scope domain can be directly derived from the syntactic (ie. c-command) domain of overt *only*. The same case can be made for (74a).

(74) a. they only received the telegram AFTER TWO HOURS
(ie. that was slow)
b. they received the telegram only AFTER TWO HOURS
(ie. that was slow/ that was quick)

(74a) cannot be interpreted as having local scope (ie. where "that was quick" is implied) although the interpretation is perfectly accessible in (74b), the adjacent *only* example.
The interaction of scope bearing *only* with other quantifiers offers more evidence that a syntactic domain is involved. In particular, Taglicht (1984) remarks that quantifiers preceding *only* behave differently from those that follow it in the overt syntax.

(75) a. only GEORGE knew a lot of facts
George knew a lot of facts and everyone else did not know a lot of facts
b. a lot of facts were known only to GEORGE
George knew a lot of facts and these facts everyone else did not know about them

For instance, in (75a) the determiner *a lot* is outside the scope of *only* when it precedes it, but inside *only*'s scope if it follows it. This means that the scope domain of clausal *only* for the interpretation of focus also corresponds to the domain where the scope interactions with other given quantifiers pattern alike.
The case of clausal *even* however puts into question the configurational notion of scope adopted in our definition in (72) since the scope domain specified for non adjacent *even* in (76) does not correspond to the syntactic domain of *even* (Hoeksema and Zwarts 1991). In particular, the focus phrase *Dieter* is outside the syntactic domain of the particle *even*.

(76) DIETER has even left Germany

Although we may not want to retain the definition of scope in terms of syntactic domain given above; configurational constraints still appear to be relevant to the specification of the

range of interpretations available to *even*XP in the light of (77).

(77) a. DIETER thought that I 'd even left Germany

(Hoeksema and Zwarts 1991)

b. you can do lots of things with bananas : I even know a guy who SMOKES them

(Rooth 1985)

In particular, it is possible to extend the scope of the focus particle *even* to the sentence when the focus phrase is contained within the syntactic domain of *even*. More precisely, whereas (77a) below cannot be interpreted as "even Dieter thought I'd leave Germany", the focus phrase *SMOKES* in the lower clause can be construed with the matrix focus particle *even*.

Putting aside the problem of clausal *even*, the hypothesis that *only* under Aux indicates its (invariably sentential/clausal) scope domain is taken to be uncontroversial: "it is sufficient to assume that the scope is the right adjacent constituent in the c-command domain of the particle [*only*]" (Stechow 1991:39). Next, the *only*XP/XP*only* paradigm must be considered.

3.3. QR of *Only*XP/XP*Only*

The basis case of *only*...XP is standardly extended to the case of adjacent *only*XP/XP*only* too. Adjacent *only* also annotates its scope albeit at a different level of the derivation.

(78) We are required to study only SYNTAX

As we have seen above the focus adverb does not show any scope ambiguity when separated from its focus. *Only* in (73a) could not take scope over the matrix VP *required to study syntax* to get the meaning 'the unique requirement on us is to insure that we study syntax the other subjects being optional', however the additional reading is available in the case of the adjacent *only* in (78). Adjacent *only* can be construed as taking wide scope over either the matrix VP *required to study syntax* or the subordinate VP *study syntax*, although it does not c-command either of the constituents. To account for the scope ambiguity which arises in the case of adjacent *only* in (78), the complex *only* NP can be adjoined at LF to either the higher or lower verb phrase. The scope of the focus particle is thus syntactically determined after

LF raising of *only*XP: (79a) and (79b) being structurally equivalent to (73a) and (73b) respectively.

(79) a. we are [$_{VP}$required to [only SYNTAX [$_{VP}$study t]]

b. we are [only SYNTAX [$_{VP}$required [$_{VP}$to study t]]]

The apparent scopal ambiguity noted in (78) is therefore resolved at LF after QR has applied. There are several problems with the QR hypothesis as laid out above. Firstly, the standard arguments against a syntactic operation like LF adjunction apply. As pointed out by Hoeksema and Zwarts (1991), the interaction of adjacent *only* with other quantifiers does not predict that they occupy a IP/VP adjoined position at LF, or indeed at any other level of the derivation. In fact, as we have seen previously, the quantifiers interaction with respect to *only* is only relative to *only*'s position in the overt syntax. Moreover, as noted earlier, QR is a syntactic process and thus subject to locality constraints, but as Rooth (1985) suggests, there are no locality constraints on association of *only* with focus except, perhaps, for the case of *only* inside PP and NPs.

(80) a. ?At the party John spoke to only Mary (Rooth 1985:93)

b. *the children play in only the common

c. *the library is closed on only Sunday

(81) a. *the entrance only to the Santa Monica freeway was blocked off

b. *the entrance to only the Santa Monica freeway was blocked off

The problem can be alleviated by opting for the quantifying-in rather than the QR approach. Taking the adjacent *only*XP structure as the basic case, *only*'s position identifies its domain of quantification/restriction whereas *only* in the *only*...XP structure identifies its second argument (de Mey 1996). The tripartite structure of quantification resulting from the movement of the constituent *onlyXP* which creates a variable however means that *only* can no longer be analysed is as a unary operator as initially proposed. Another option is to restitute the original order by quantifying-in the particle *only* alone. Rooth's (1992) proposal

is essentially a different implementation of this idea. When C, the argument of *only*[21], is constrained by the focus semantic value (FSV), an abstract semantic operator~ binds the variable substituted to the focus phrase. While the scope of the operator~ remains associated with the configurational constraint of c-command, it is invisible to the syntax, thereby predicting the absence of locality constraints between the operator ~ and the focus phrase. But, the abstract operator hypothesis also means that *only*'s overt position no longer constrains the interpretation of the structure of association with focus: *Only*'s overt distribution being only accidentally in correlation with the scope of the abstract operator ~. As a result, no explanation is provided for *only*'s distribution in the overt syntax, or for the syntactic mapping of adjacent *only* and non adjacent *only* onto certain types of interpretations.

There are at least two proposals (Hoeksema and Zwarts 1991 and Konig 1991) which have taken into account the syntactic differences between adjacent and non adjacent *only*, and mapped them onto different interpretive constraints.

3.4. Hoeksema and Zwarts (1991)

Following a suggestion already present in Rooth's (1985), Hoeksema and Zwarts (1991) argue that the distinction between adjacent vs non adjacent *only* in the syntax corresponds to a distinction between its phrasal and clausal scope similarly to negation where we traditionally distinguish between sentential vs constituent negative markers (ie. the *not/not* distinction rather than the *not/no* one). Both the *only*XP and *only*...XP structures identify the scope of the particle, but the *only*...XP structure corresponds to clausal *only* whereas the *only*XP structure to phrasal *only*.

The case of *only*...XP as indicating clausal/sentential scope is uncontroversial and has been previously discussed in section 3.2. I will not go over the argumentation again. That adjacent *only* marks phrasal scope is only true to a certain extent. Taglicht (1984) notes that when adjacent *only* is inside a prepositional phrase, the domain of the focus particle *only* is strictly local (data from Taglicht 1984:152). Moreover, it often results in a scalar interpretation of *only*:

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[21] *Only's* argument which is the free variable C does not have to be constrained by the syntax, but instead can be pragmatically defined.

(82) After only A QUARTER OF AN HOUR half the audience were asleep

to be interpreted as: when a quarter of an hour had passed and not more than a quarter of an hour had passed half the audience were asleep.

However, a local scope interpretation is not equivalent to a scalar interpretation of *only* as the case of *only* inside a *with* phrase in (83) below illustrates.

(83) she talked to him with only A GUARD present in the room[22]

she talked to him and there was a guard in the room and there was no one else in the room.

When *only* is inside a *with* phrase it must have local scope, although, as the gloss indicates, the scalar interpretation need not obtain. *Only*XP inside a NP modifying an adjectival phrase is also interpreted with local scope. Here again the interpretation is scalar.

(84) we have an only SLIGHTLY shopsoiled copy

to be interpreted as we have a copy that is slightly shopsoiled and that is not more than slightly shopsoiled.

The data above shows that it is the syntax of adjacent *only* which constrains the invariably phrasal/local scope of the particle. Equating adjacent *only* to phrasal *only* is only partially adequate however. For instance, the data below shows that scopal ambiguities may arise.

(85) they acquired the painting only for 100 pounds[23] (Taglicht 1984:153)

In (85) *only* can have either local scope and the implication is that "the seller did not know the real value of the painting", or clausal scope and the implication becomes one where "the buyer had to drive a hard bargain"(Taglicht 1984:153). The other type of ambiguity is illustrated in (86). In (86), the scope domain of *only* can either be the subordinate clause or

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[22]Constituent negation reading: "she talked to him not with *not a guard present in the room".

[23] Constituent negation reading available: "they acquired the painting for not a 100 pounds".

the whole sentence.

(86) we are required to study only SYNTAX

a. we are required to only study SYNTAX

b. we are only required to study SYNTAX

In other words, (86) is ambiguous between a clausal (86a) and sentential (86b) scope reading which together exhaust the interpretation of adjacent *only*[24]. This shows that adjacent *only* cannot just simply be equated to a phrasal scope taking element like constituent negation. In fact, the scopal domain of *only* in (86) is the reverse of that of constituent negation[25].

In conclusion, the hypothesis that adjacent *only* corresponds to phrasal *only* as defined by Hoeksema and Zwarts fails to account for the cases where it has clausal/sentential scope.

To sum up so far, mapping the syntax of *only* as a unary operator to that of the negative marker *not* is successful to some extent; *only* however also has what some linguists refer to as "quantificational force". I propose to turn to an analysis (Konig 1991) which emphasises this aspect of *only*'s interpretation.

3.5. Konig (1991)

In Konig's proposal the syntactic distinction between adjacent vs non adjacent *only* is also mapped onto a semantic distinction. Konig (1991) argues that the *only*XP configuration roughly corresponds to the syntactic identification of the focus phrase by *only* whereas in its sentential use *only* has scope bearing properties. In other words, the adjacency criterion in the syntax parallels the distinction between the two parameters along which the focus semantic value (FSV) can vary. I propose to summarise what is involved when interpreting association with focus structures before looking at Konig's proposal.

We have seen that, in Rooth's (1985) alternative semantics, focussing is represented by a variable substitution for the focus phrase which makes a set of alternatives or focus semantic value (FSV) available. This set of alternative is represented by $|\alpha|^f$. The variable in $|\alpha|^f$ is

[24] An additional scalar reading is possible, but it need not entail a local scope interpretation (cf. section 4.3 for motivations of this claim).

[25] A constituent negation reading is not available.

itself bound by the scope operator ~ [26] (Rooth 1992). In turn, $|\alpha|^f$ indirectly (in the sense that the context variable C is only constrained by the focus semantic value $|\alpha|^f$[27]) provides *only*'s argument which in Rooth's (1992) proposal is the free variable C. There are therefore (at least) two parameters which are relevant (if indirectly) to the interpretation of *only* in association with focus: we want to know what the focus is, and what the scope of the operator ~ which binds the free variable introduced by focus semantics is.

We now turn to the role of syntax in the determination of the focus semantic value. Konig argues that in the overt syntax *only*'s position is correlated not only with the position of the scope marker ~, but also that of the variable. In other words, one of the two parameters on which the focus semantic value (FSV) depends is determined by the overt syntax of *only*. The mapping is as follows. Non adjacent *only* determines the scope of the scope operator ~ while adjacent *only* syntactically identifies the focussed element. The case of non adjacent *only* has already been discussed and argued for in section 3.2. I therefore leave it aside. Turning to adjacent *only*, Konig proposes that adjacent *only* plays the same role in the syntax than stress in the phonology: it identifies the focus element. The syntactic configuration which must obtain in order to syntactically identify the focus constituent is one of c-command. Adjacent *only* must c-command the focus element it identifies within its immediate maximal projection. In other words, either (87a) or (87b) must obtain.

(87)

Furthermore, the identification of the focus phrase in the syntax predicts that no ambiguity can arise at this level assuming that syntactic constraints cannot be overridden.

Consequently, we expect that, when the identification of the focus phrase is done by adjacent *only*, constituents outside the immediate c-command domain of *only* do not qualify as

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[26]Rooth (1996) argues that under his (1992) proposal it is the scope operator which introduces the focus variable.

[27]Reproduced from (21):

$C \subseteq [\![\alpha]\!]^f$, where a variable occur in α.

$[\![\alpha]\!]^o \in C$, and

$\gamma \in C$ and $[\![\alpha]\!]^o \neq \gamma$

potential focus constituents. This hypothesis is verified in (88a) and (88b) where the focussed constituent cannot be the entire VP or its individual constituents the verb or the object[28].

(88) a. MARY only has invited John
b. *Marie only has INVITED John
c. *Marie only has invited JOHN

Similarly, in (89), the focussed element cannot be the subject *I* or the object *Mary* since both violate the syntactic constraint on focus identification. The subject is outside the c-command domain of adjacent *only* whereas the object is not within its immediate projection.

(89) I had only phoned Mary
a. I had only PHONED MARY
b. I had only PHONED Mary

Some amount of indeterminacy may still remain as to the choice of focus. Looking back at (89), *only*, we assume, adjoins to the VP, therefore both the constituents *phoned Mary* and *phoned* qualify as potential focus elements.

Konig's proposal also means that, while the focus variable is clearly identified in the syntax, the scope domain of the focus particle is left syntactically undefined or at least underspecified. Ambiguities may arise in the case of adjacent *only* since there is nothing in the syntax giving us any clear indication about the scope of the particle. This is supported by the data previously introduced in (85) and (86). However, the data where adjacent *only* is only interpreted as having phrasal scope is now left unaccounted for. In other words, this analysis similarly to that of Hoeksema's and Zwarts' (1991) only holds of a subset of the data on adjacent *only*.

3.6. The Two Functions of Adjacent *Only*

I propose that the overt distribution of *only* constrains the interpretation of association with focus, but argue that there is no direct mapping between the syntactic distinction in terms of

[28] The case of *only* last is set aside.

adjacency and *only's* semantic contribution as initially suggested by Hoeksema and Zwarts (1991) as well as Konig (1991). In particular, *only* like negation can have a clausal/sentential or phrasal/local scope. However, another parameter must be taken into account when interpreting association of *only* with focus; namely, the choice of focus. Using Bayer's configurational notion of syntactic domain, I propose that (I) the semantic variable must be identified to a focus constituent syntactically identified by a focus feature within the immediate syntactic domain of the focus particle *only* or/and (ii) the domain in which the variable resulting from the substitution of the focussed constituent is bound corresponds to the syntactic domain of the focus particle *only* which can either be phrasal or clausal. Although the two parameters (ie. focus constituent and scope of the operator ~) are needed to fix the FSV, there exits some variation as to which of these two parameters is syntactically determined by the position of *only*. In other words, the overt syntax of *only* matters to fixing the FSV, but it does not fully determines it. As a result, the interpretation of *only* in association with focus gives rise to ambiguities[29]. I propose to reconsider the data which illustrates these claims.

We have seen that adjacent *only* can give rise to scopal ambiguities except for a restricted number of data where it always has phrasal scope. This is illustrated below:

(90) a. she talked to him with only A GUARD present in the room
b. she talked to him only with A GUARD present in the room

Only in the (a) sentence is inside the PP whereas in the (b) sentence, it is outside it. This is not the only difference however. As seen previously, when *only* is construed inside a PP, a *with* phrase or a NP phrase, the scope of the focus operator~ is local. In other words, the overt position of *only* must indicate its scope (or the scope of ~). On the other hand, when *only*, as in the (b) example, is outside the PP or the *with* phrase, the scope of ~ can be local or clausal provided that an appropriate interpretation is accessible. If the case can be made that there exists two types of adjacent *only*, then the contrast found in (90) readily follows. I assume that motivations can be found for the following distinction: each adjacent *only* has a distinct contribution to make towards determining the FSV. More precisely, adjacent *only*

[29] Of course further ambiguities are expected from the fact that the context variable C is not equivalent to the FSV, but constrained by it.

position can syntactically identify the ~ operator's scope by its position in the overt syntax. The constraint being a syntactic constraint cannot be overridden so a clausal scope interpretation is not available (90a). I call this use of adjacent *only*, phrasal *only*. On the other hand, when adjacent *only* position identifies the focus constituent no constraint on the scope of the operator ~ is effective in the syntax and different scopes can be defined for ~ irrespective of the overt position of *only*. (90b) is taken to illustrate this case.

There exists an apparent counter example to this hypothesis. Hoeksema and Zwarts point out that what I have defined as phrasal *even* can take wide scope with respect to the universal quantifier in (91).

(91) niemand kennt alle Freudinnen auch nur einer dieser Herren
nobody knows all the girlfriends of even one of these gentlemen

This does not mean however that phrasal *even* position ceases to determine the scope of the operator~ which constrains the choice of the FSV. In particular, the focus which is the constituent *one* and the scope of ~ operator *one of these gentlemen* which both contribute to fixing the FSV are not equivalent to the scope of the structure of association with focus with respect to the quantifier *all*, but are defined independently from the interaction of the structure of association with focus with other quantified elements. To put it differently, in (91), *even*XP can take scope over the QNP, but it does not follow from that, that the scope of ~ which contributes to fixing the FSV is extended to the whole NP phrase *all the girlfriends of even one of these gentlemen*.

I am arguing that the overt syntax of *only* can either identify the scope of the operator~ or the focus variable. I have provided evidence that when the scope was not syntactically identified by the overt position of *only* as in (90b), scope ambiguities followed. Similarly, some indeterminacies as to the identification of the focus phrase can arise when *only* has a scope marking function. Firstly, there is evidence that, although stress can be a good indicator, it can be overridden by pragmatic factors. For instance, in (92) *swept* is the element that receives stress. The utterance is however perfectly compatible with a context in which "what was needed was a thorough sweeping out of the whole cottage". In this case, the focus element *only* associates with cannot be *swept* but *the kitchen*:

(92) was every thing spotless?
I doubt it# - she/only !swept the kitchen#

This follows if we take the identification of the focus phrase to be done independently from the syntax of *only*. Stress is not taken to be a syntactic constraint therefore it can be overridden. There are also cases in which the focus constituent may not be available. In (93) the focus element is not present in the derivation and the stress falls on the focus particle itself.

(93) they now entered a second tunnel, also dimly lit with candles (Taglicht: 1984:65)

This is possible under the assumption that *also*'s function in the above example is to syntactically mark the scope of the ~ operator, and not identify its focus.
To summarize the findings on the *only*XP construction, I have proposed that *only*'s position in the overt syntax can constrain interpretation in two ways. Its position marks the scope of the operator ~ or when adjacent to the focussed element identifies the focus variable. This distinction however does not match the syntactic distinction between adjacent and non-adjacent *only*. Besides the use of *only* corresponding in the syntax to the *only*...XP sequence which indicates the (clausal) scope of the operator~ , I have shown that adjacent *only*, when occurring inside PP, NP and *with* phrases invariably lead to local scope interpretations. I proposed that adjacent *only*, in this case also, indicates the scope of the operator~.
One of the consequence of this analysis is that, when one of the two parameters which contributes to determining the FSV is syntactically specified by *only*'s overt position, it cannot be overridden. Additional evidence for this hypothesis is provided by the Standard French *ne...que*XP construction to which I turn in the next section. However, before doing so I propose to look at the claim that barrierhood explains the absence of wide scope readings when *only* is inside PPs (or NPs) as suggested by Bayer (1996).

3.7. Bayer (1996): QR

Bayer shows that *nur* in German behaves similarly to adjacent *only*. The data and gloss are from Bayer (1996):

(94) a. der Präsident muß nur mit WENIGEN Parteien verhandeln
the president must only with a few parties negotiate
b. der Präsident muß mit nur WENIGEN Parteien verhandeln
the president must with only a few parties negotiate

In the (94a) example a wide scope reading over the modal is possible leading to the interpretation "not more than three parties are such that it is necessary to negotiate with them". This reading is not accessible in the (b) example which can only be interpreted as "it is necessary that the president does not negotiate with more than three parties" (Bayer 1996: 67). The same has been shown to hold of *only* and *with* phrases. Moreover, in the case where *nur* is inside the PP, the sentence becomes ill-formed if the choice of focus requires *nur* to take clausal scope:

(95) a. daß sie nur mit dem OPA plaudert (Bayer 1996:18)
that she only with the grand father talk
b. *daß sie mit nur dem OPA plaudert
that she with only the grand father talk

The German data shows two things. When *nur* is inside a PP or NP the scope of the operator~ which binds the focus variable must be local. In other words, provided that a possible local scope interpretation is available as in (94), then the derivation is well-formed. Elsewhere, *nur* in association with focus is ambiguous between a clausal or local scope[30] interpretation.

In Bayer's, the unambiguous readings are accounted for by some narrow syntactic restrictions on QR. More precisely, a focus particle adjacent to its focus can undergo QR to take wide scope unless a barrier intervenes (typically PPs and NPs are barriers for extraction of wh-phrases). I consider here the evidence which links the absence of long distance dependencies in the case of association with focus inside prepositional phrases to the presence of barriers for extraction.

[30]Bayer proposes that the two different scope domains respectively correspond to a "quantificational" vs "scalar" use of the focus particle *only*. I retain however the initial distinction in terms of scope proposed by Hoeksema and Zwarts (1991)(cf. section 4.3 for motivations).

Firstly, it is true that prepositional phrases in German and French are barriers to movement. Preposition stranding in the case of overt wh-movement is only possible in English as shown below:

(96)	a. *qui as tu parlé à?	French
	b. *wem hast du gesprochen mit?	German
	c. who did you speak to	English
(97)	a. *quoi es-tu assis sur?	French
	b. *was sitzt du auf ?	German
	c. what are you sitting on ?	English

Bayer proposes that the asymmetry between German (or French) and English is due to the fact that prepositions in German (and French) do not assign structural case whereas English ones do. The special status of English prepositions with respect to barrierhood therefore predicts that the sentences where *only* is inside a PP are markedly better than their German (and French) counterparts as shown below (1996:31):

(98) a. At the party John spoke to only Mary
b. ?the children play in only the common
c. ??the library is closed on only Sunday

Bayer's underlying claim is that adjacent *only* in (98) can have a wide scope reading. But, to the extent that the examples are indeed well formed, it does not immediately follow that a wide scope reading is available. Instead, I propose that (98a) can be reanalysed as (99a) and contrasted with (99b).

(99) a. ??At the party, John spoke to only MARY
focus: Mary scope of the ~ operator: the PP
b. At the party, John spoke only to MARY
focus: Mary scope of the~ operator: the sentence

To put it differently, (99a) and (99b) can be put into parallel with the earlier distinction

between sentence and constituent negation:

(100) a. ???this evening, John spoke not to Mary (but Helen)

b. this evening, John did not speak to Mary (instead he watched football on TV)

In other words, English prepositions which are not barriers for extraction of wh-phrases do not allow wide scope readings of the focus particle *only* either.

Secondly, as argued above, the association with focus structures do not allow long distance dependencies across a PP to be established as shown below:

(101) a. daß der Polizist eine Bombe vor nur einem Gebäude fand

(adapted from Bayer 1996:111)

that the policeman a bomb in front of only one building found

b. the policeman found a bomb in front of only one building

The scope of the focus operator is phrasal whenever adjacent *nur* or *only* is inside a PP. Nevertheless, a wh-phrase inside a PP can undergo movement, in both French and German, provided that the whole PP which contains the wh-phrase is pied pipped.

(102)	a. à qui as tu parlé?	French
	b. mit wem hast du gesprochen?	German
	c. to whom did you speak?	English

(103)	a. sur quoi es-tu assis?	French
	b. auf was sitzt du?	German
	c. on what are you sitting?	English

Bayer proposes again that the contrast between the association with focus structure in (101) which does not allow long distance dependencies across a PP, and the case of a wh-phrase which can undergo overt A' movement provided that the whole PP phrase pied pipes should be subsumed under the conditions governing feature percolation. In (103), a licensing wh-feature percolates up to the prepositional phrase allowing the whole constituent to move. On

the other hand, the non ambiguous local interpretation of *nur* in (101a) results from the impossibility of voiding barrierhood. This is only partly true, however, since the scope of the structure of association with focus with respect to other quantifiers does not have to be local. Consider (91) once more:

(91) niemand kennt alle Freudinnen auch nur einer dieser Herren
nobody knows all the girlfriends of even one of these gentlemen

(91) shows that complex NPs have the same status than PPs. The scope of the operator ~ binding the focus variable is local (ie. corresponds to the phrase *one of these gentlemen*). However, the German *auch nurXP* structure inside the NP phrase can also be interpreted has having scope over the universal quantifier (ie. the constituent *alle freudinnen auch nur eines dieser Herren*) suggesting that scope interactions do not simply rely on structural conditions such as the notion of barrierhood.

The *only*XP and *nur*XP constructions do not follow either the general conditions on extraction of QNPs. Whereas in German, French and English association with focus structures cannot take wide scope over a PP, universal quantifiers do:

(104) a. daß der Polizist eine Bombe vor jedem Gebäude fand (Bayer 1996:111)
that the policeman a bomb in front of each building found
b. le policier a trouve une bombe devant chaque batiment
c. the policeman found a bomb in front of each building

preferred reading for a, b, c: for each building x there was a (different) bomb y such that the policeman found y in front of x

It seems to me that the relevant generalisation is that the availability of a wide scope construal is construction specific and cut across languages. The association with focus structures are not subject to the same constraints than overt (covert) wh-movement or quantifiers. Instead, they pattern alike in both English and German, and as will be subsequently shown, French. Consequently, the notion of barrierhood which applies to move α where α is a non distinct category (or feature) will not do as it cannot distinguish between the two types of dependencies.

In conclusion, I have argued against a QR account of the Bayer's type to account for the

locality constraints at work in the case of association with focus, but it is important to note that even Bayer's syntactic account of the German and English facts does not assume that an EC is involved, although as I am now going to show, the syntactic constraints on the structure of association with focus in both German and English mirror the French ones. Under Bayer's (1996) proposal, the German *nur*XP construction follows the more general pattern of A' dependencies.

4. The *Ne...Que*XP Construction

I now propose to investigate how the hypothesis put forward for the structure of *only* in association with focus fares in the case of *ne...que* in association with focus. I argue that what distinguishes the *ne...que*XP construction from the structure of *only* in association with focus is that the semantic focus value (FSV) is constrained by the syntax in two ways. *Que* identifies the focus element, and *ne* marks the scope of the focus operator which is invariably clausal. This is equivalent to saying that *ne* corresponds to "clausal *only*" whereas *que* to *only*'s role as a focus identificator. The respective properties of *ne* and *que* allow me to derive the absence of dependencies between *ne* and *que* across PPs and NPs without having recourse to empty categories while maintaining that *ne...queXP* forms an A' chain dependency of the *ne...personne/rien* type following Azoulay Vicente's (1988) proposal. I have shown that *only* as a phrasal scope marker can only occur in a restricted number of positions. I predict that *que* cannot occur in these same positions without otherwise leading to contradictory requirements in the syntax since *ne* is defined as annotating the scope of the ~ operator and its scope is invariably clausal. Moreover, because both the identification of the variable and that of the scope of the operator are constrained by the syntax I predict that no scope ambiguity arises and that a focus phrase must be syntactically realised unlike in the case of the *only*XP construction.

I propose to first present the evidence that *ne* is a clausal scope marker, and, next, turn to the *que* element. In the last section, I provide a unified account of the interpretation of the *ne...que* in association with focus structure which is based on Rooth's alternative semantics, but integrates some syntax as motivated below.

4.1. *Ne* as a Clausal Scope Marker

I propose that the use of *ne* in the *ne...queXP* construction corresponds to *only* in the *only*...XP construction where *only* is a clausal scope marker in auxiliary position. The hypothesis that *ne* is linked to clausal scope is motivated by the syntax of negation in Standard French. Sentence but not constituent negation must be supported by the *ne* element as illustrated below.

(105) a. un livre sur rien est invendable
b. *un livre sur rien n'est invendable
a book about nothing is unsaleable

(106) a. rien n'est consistent avec cette theory
b. *rien est consistent avec cette theory
nothing is consistent with this theory

Moreover, the *ne...queXP* construction is always non ambiguous similarly to sentential/clausal *only*.

(107) Marie va ne voir que Jean
'Marie will only see Jean'
(What will happen is that Marie sees only Jean) (epistemic)

(108) Marie ne va voir que Jean
'Marie only will see Jean'
(What Mary will do is see only Jean) (root)

(107) and (108) differ only as to the overt position of the *ne* element but each has a distinct non ambiguous scopal interpretation. Assuming that *Jean* is the focussed element, it is easy to see that it is the overt c-command domain of *ne* which determines the scope of the ~ operator in each case.

Additionally, *ne* cannot be used to modify non-sentential fragments although it is to a certain extent possible to use *que*XP on its own.

(109) when will you leave?
a. *ne que quand je serai prête

b. ?que quand je serai prête
only when I am ready

This clearly indicates that *ne* like clausal *only* is related to the tense position where the auxiliary or the finite lexical verb is realised. The c-command constraint on the expression of association with focus with *ne...queXP* also follows if we take *ne* as imposing the same constraints as clausal *only*. Recall that when *only* is separated from its focussed element *only* must c-command it.

(110) a. *JOHN only introduced Bill
b. John only introduced BILL
c. John only INTRODUCED Bill

In (110), the syntactic domain (Bayer 1996) of clausal *only* is the VP[31]. The focus element in subject position being outside it the derivation is not well-formed. I propose that the same holds in the case of the *ne...que*XP construction. In other words, the c-command constraint illustrated in (111) is not due to ECP effects, but to the fact that the focus phrase must be in the syntactical domain of the clausal scope marker *ne*.

(111) a. *que John n'a presenté Bill àMarie
JOHN has only introduced Bill to Marie
b. John n'a que presenté Bill à Marie
John has only INTRODUCED Bill to Marie
c. John n'a presenté que Bill à Marie
John has only introduced BILL to Marie

4.2. The Status of *Que* as Adjacent *Only/* German *Nur*

I derive the distributional properties of the *que* element from the fact that *que* cannot be a (phrasal) scope marker if *ne* with which *que* combines is a sentential scope marker as argued above. The status of *que* therefore can only be equivalent to that of identificator *only/ nur*.

[31]Clausal *even* is not subject to this c-command requirement.

Firstly, I adopt Bayer's syntactic analysis of the adjacent *only* and the German *nur* focus particles for the *que* constituent as it patterns along with them. Bayer noted that syntactically focus particles adjacent to their focus behave differently from adverbs in that they can attach to all types of constituents:

(112)	only Bill	nur Bill	NP
	only to London	nur nach London	PP
	only poor	nur arm	AdjP
	only go to London	nur nach London zu gehen	VP
	only that he goes to London	nur daß er nach London geht	CP

The same can be shown of the *que* element:

(113)	que Bill	NP
	qu'à Londres	PP
	que pauvre	AdjP
	qu' aller à Londres	VP
	que quand il revient	CP

Bayer proposes to extend to focus particles an analysis given by Rothstein (1991) for degree words. He assumes following Rothstein's (1991:107f) that three types of minimal syntactic constituents can be distinguished:

(114)

Type I	lexical heads which have theta-grids and projects categorial features
Type II	functional heads, such as DET and INFL, which binds theta positions in the grid of their complements, subcategorize, and project category features.
Type III	minor functional heads which subcategorize, but do not have theta-grids, do not bind theta positions, and do not project category features.

Focus particles belong to the third category. They are elements which do not project categorial features, but rather extend the category they adjoin to. This analysis also explains why adverbs, but not adjacent *only* violate the adjacency requirement that holds of English

direct objects.

(115) a. John likes only himself

b. *John likes often himself

The parallelism can be extended to the locality constraints which the association with focus structures are subject to. In particular, I argue that the absence of a wide scope construal in the case of phrasal *only* and the German *nur* focus particles also applies to the *que* element. I have previously introduced data showing that *only* phrases which are adjacent to their focus take sentential scope if and when they are not inside a PP or NP or *with* phrase. The scopal possibilities were explained by differentiating two types of *only*. Phrasal *only* whose position identifies the scope of the focus operator and identificator *only* whose position identifies the focussed element. Phrasal *only* occurs inside PPs, NPs and *with* phrases and identificator *only* elsewhere. The same was shown to hold of German *nur* in the discussion of Bayer's (1996) QR analysis. Inside a PP or NP *nur* cannot take wide scope. Moreover, if the choice of focus is such that a local scope interpretation is not possible, then the derivation becomes ill-formed. Turning to the French data, the same pattern emerges. When a local scope interpretation is precluded both German and French pattern alike.

(95) a. daß sie nur mit dem OPA plaudert (Bayer 1996:18)
that she only with the grand father talk

b. *daß sie mit nur dem OPA plaudert
that she with only the grand father talk

(116) a. elle ne parle qu'avec le grand père
she only talk with the grand father

b. *elle ne parle avec que le grand père
she talk with only the grand father

(117) a. *in nur Großstädten (Konig 1991:27)
in only major cities

b. *dans que des grandes villes
in only major cities

There is however an additional constraint that holds in the case of *que*. As seen above,

German *nur* can receive a local scope interpretation provided that the choice of focus permits it. In the case of the *ne...queXP* construction the construal however remains ill-formed[32].

(118) a. in nur WENIGEN Fällen
in only a few cases
b. ???il ne la croira dans que PEU de cas
he will believe her in only a few cases

Under my assumptions, the fact that *que* inside a PP, NP or *with* phrase can never be construed with *ne* means that a phrasal scope reading is unavailable in the case of the *ne...que*XP construction. In other words, *que* cannot function as a phrasal scope marker. Instead, its role is limited to that of focus identificator[33]. This seems to tie up with the analysis of *ne* as a clausal scope marker. Assuming that *ne* is a clausal scope marker and that specific positions restrict the role of the particle to that of local scope marker, then *que* cannot occur in these same positions without giving rise to contradictory statements in the syntax.

4.3. Scalar Interpretations

The notion of scalarity is usually linked to a pragmatically established set of alternatives ordered along a scale where "the scale are in some sense given to us" (Gazdar 1979 following Horn 1972) and where the reference to pragmatics implies that scalar effects are cancellable. Bayer (1996) proposes that the two scope domains distinguished so far for *only* (or *nur*) correspond in fact to a quantificational and scalar use of the focus particle. Scalarity has been invoked before to capture the "quantificational effect" which arises in the case of superlatives otherwise analysed as modifiers.

(119) my uncle can't stand the faintest noise

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[32]It is true that the result improves if the focus phrase is a quantificational element. (118b) above can be contrasted with (i) which is much worse.
(i) *il ne l'a vu dans que le bar
he saw him in only the pub

[33] In parallel, constituent negation *pas* cannot co-occur with the *ne* element.

For instance, (119) can be interpreted with a literal reading for which *the faintest noise* refers to a specific noise, or the superlative can have "quantificational force". Under the latter interpretation, (119) is roughly equivalent to the universally quantified sentence "for every noise x, x is such that my uncle can't stand x" (cf. Fauconnier 1975).

Bayer's claim is an altogether different one. He argues in favour of a quantificational treatment of the particle *only*, but, when the (semantically derived) domain of quantification is not available, as in the narrow scope readings of *nur*, a pragmatic set of alternative ordered on a scale is established instead.

To put it differently, the set of alternatives needed for the interpretation of *only* in association with focus can be either semantically, or pragmatically construed. However, analysing *only* as both a determiner which has clausal scope, and, when a barrier intervenes, a modifier does not seem to make much sense.

In Rooth's (1992), scalar effects arising from the interpretation of association with focus receives a different treatment. Rooth (1992) proposes to analyse scalar readings as a partial ordering relation on the set of alternatives already made salient by focussing.

I propose that the two types of *only* should be, as previously in Hoeksema's and Zwarts's, differentiated in terms of scope. The notion of scalarity can then be captured by an additional constraint imposed on the set of alternatives made available by focussing (or the quantificational domain of *only* if it turns out to be a quantificational adverb), instead of invoking a different method of obtaining that set. If we take this view, then a narrow scope reading does not always result in a scalar interpretation. Conversely, the scalar readings can no longer be restricted to local scope construals. This is in keeping with both the English and StF data.

Firstly, we have seen that in English a local scope interpretation does not always correspond to a scalar reading. If we maintain the earlier distinction in terms of scalar vs quantificational use of *only*, then we can no longer account for the interpretation of, for instance, *only* inside a *with* phrase.

(83) she talked to him with only A GUARD present in the room

Secondly, scalar readings are available in the case of the *ne...que*XP construction, although the scope of the ~ operator is invariably clausal. In other words, the examples below provide additional evidence that a scalar reading is not equivalent to a phrasal scope reading, nor can

it simply be understood as an alternative strategy to build up a set of alternatives.

(120) Jean n'a donné que deux livres à Marie (Azoulay-Vicente 1984:223)
Jean has only given TWO books to Mary

Azoulay Vicente argues that (120) can have two interpretations. Firstly, (120) can be interpreted as "Jean gave two books to Mary and nothing else", but also as "among the things Jean gave to Mary there were no more than two books". (120) further supports the hypothesis that the *ne...que* XP construction is compatible with a scalar interpretation. Clitic *en* extraction out of the *que* phrase means that the focus element is the numeral *deux* typically requiring a scalar interpretation.

(121) il n'en a que deux
he NE of it/them QUE two
he has only TWO of them

To sum up so far, local scope taking seems to be precluded in the Stf structure *ne...que*XP, but not the scalar readings. This follows directly from our analysis of *ne* as marking the scope of the focus operator at the level of the clause and *que* as identifying the focus phrase while being compatible with the current analyses of scalarity effects.

5. An alternative Semantics Account of the *Ne...Que*XP Construction[34]

I propose that *ne que*XP is an instance of association with focus as defined by Rooth (1992). The characteristics of association with focus are the following:

[34]Cf. Cornillon and Chao (1995).

(A)- a focus phonological stress falls on the element that is to be interpreted with the semantics of focus as developed in Rooth's (1985).

(B)- a scope marker ~ binds the variable introduced following the theory of alternative semantics.

(C)- in the case of focus sensitive elements like *only* which takes the context variable C as an argument, C must be constrained by the focus semantic value of the focused element.[35]

The hypothesis put forward here is that *ne...que* XP and *only* XP are defined by clauses (A) to (C) above. Furthermore, (A) and (B) can be syntactically identified in the case of focus sensitive expressions. More precisely whereas the lexical elements *only* syntactically identifies either (A) the focussed element or (B) the scope of the ~ operator the French *ne que* XP construction always specifies (A) and (B) in the syntax. I take *ne* to be the overt instantiation of the scope marker whereas *que* marks the locus of the focus element.

Secondly, the distribution of *ne/que/only* is syntactically constrained by a c-command requirement which holds in the case where the scope marker ~ and the element that identifies the focus phrase are both syntactically realised.

Let us reconsider some examples to illustrate the proposal that in French *ne* is the overt instantiation of the ~scope marker whereas *que* identifies the focus element.

(122) Marie va ne voir que Jean

que Jean' = $\lambda x \lambda R \lambda y[\forall P\ [\ P \in C \wedge P(y) \Rightarrow P = \lambda z[R(x,z)](y)](j)$

voir que Jean' = $\lambda y[\forall P\ [\ P \in C \wedge P(y) \Rightarrow P = \lambda z[see'\ (j,z)](y)]$

ne' = ~

F$[\forall P[\ P \in C \wedge P(m) \dashrightarrow P = [see\ Jean]']]$

where $C \subseteq \{\lambda x[see\ (x,y)] \mid y \in E\}$

'Marie will only see Jean'

(What will happen is that Marie sees only Jean) (epistemic)

[35](C) does not apply to all cases of association with focus, therefore some of the spirit of Rooth's (1992) enterprise which aims towards an across the board characterisation of association with focus is lost. I set this issue aside.

(123) Marie ne va voir que Jean

que Jean' = $\lambda x \lambda R \lambda y[\forall P\ [\ P \in C \wedge P(y) \Rightarrow P = \lambda z[R(x,z)](y)](j)$

voir que Jean' = $\lambda y[\forall P\ [\ P \in C \wedge P(y) \Rightarrow P = \lambda z[see'\ (j,z)](y)]$

ne' = ~

$\forall P[\ P \in C \wedge P(m) \Rightarrow P =$ [go to see Jean]']

where $C \subseteq \{\lambda x\ [\mathbf{F}[see\ (x,y)] |\ y \in E\}$

'Marie only will see Jean'

(What Mary will do is see only Jean) (root)

In (122) and (123) the French construction appears to leave no ambiguity as to how the focussed phrase is interpreted as shown by the gloss. In (122) the domain over which the focus operator ranges is the lower VP; in (123) the matrix verb. That the scope domain of the focus operator corrresponds to the c-command domain of *ne* constitutes a clear indication that *ne* is the syntactic realisation of the scope marker ~. Turning to the function of *que* in the structure of association with focus, in (122) and (123) above the sentences are unambiguous and both have an interpretation in which the alternatives considered across a given domain of individuals are such that when a particular individual is picked out it must satisfy what is predicated of *Marie*. This individual is *Jean* and in both instances it is c-commanded by *que*. What is relevant to the identification of the focus phrase to be (indirectly) associated to the focus sensitive operator is not so much phonological stress but its relation with the syntactic element *que*. *Que*, as captured by the c-command condition, defines the domain from which a focus variable can be picked out, possibly by phonological stress.

Another element of syntax introduced in the description of association of *ne...que* with focus is the c-command relation which holds between *ne* and *que*. I propose that *ne* must c-command *que* which identifies the syntactic domain from which the variable substituted to the focus element is drawn. This configurational constraint I have shown rules out examples such as (124).

(124) *que Marie ne connait Helen

only MARIE knows Helen

I am now in the position to revise the (A) and (B) statements in a way which integrates the

syntactic constraints present in the structures of association of a focus sensitive item with a focus phrase. I propose to reformulate (A) as (A') and (B) as (B') ((C) having been already modified):

(A') A focus element that is to be interpreted with the semantics of focus as developed in Rooth's (1985) is identified:

I) by a phonological stress and

ii) by an overt element (optionally so in English)

(B') The scope of the operator ~ which binds the focus variable is syntactically marked in the case of *ne...que* XP (optionally so for the *only*...XP^f construction).

When ~ and the focussed element are morphologically realised (B') c-commands (A')[36].

The *ne...queXP* construction is also subject to the same locality constraints than the *ne...personne/rien* construction as argued by Azoulay-Vicente (1988). I propose that the relationship between the elements *ne* and *que* is regulated by a non-trivial chain relation of the *ne...personne/rien* type, and that the analysis of *ne...personne/rien* given in chapter 3 can be extended to the *ne...queXP* construction.

Briefly, a strong feature within the IP structure (the nature of which I leave unspecified here) must be checked in the overt syntax. The focus particle *que* with the semantics of *only* and the expletive *ne* are both specified for this same feature. *Que* inside the VP is unable to raise (for instance, because merger is cheaper than move) leading to expletive insertion of *ne*. In a second step the expletive *ne* enters into a non trivial chain relation with the focus particle *que*, driven by FI[37].

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[36] Alternatively, this clause could follow from the analysis of *ne* as an expletive. Mc Daniel (1989) noted that the expletive element is always the head of the chain.

[37]The conditions under which a pro category is licensed (cf. Pollock 1985 who proposes that the underlying representation of *ne...que*NP when *que*NP is the object of a raising verb is [pro_i *ne* ...*que*NP_i] where pro is an A-related non-overt expletive to explain why a non overt subject is allowed in (I) and why the participle is specified for overt agreement as if the object had moved in (ii):

(I) n'est venu que Paul
only Paul came

(ii) n'ont été données que des pommes
only apples were given),

5.1. Further Empirical Coverage: Multiple Foci and Clitics

In this section, I look at some examples of *ne...que* in association with focus, and show how the revised version of Rooth's theory of association with focus successfully accounts for the data. Firstly, I consider the case of multiple foci. Rooth (1992) argues that the association of the focus particle *only* with an element that bears stress as illustrated in (125) can be optional.

(125) those that PRODUCE rice only EAT rice

(125) has two readings. In the contradictory reading, if P is a property predicated of those that have the property of producing rice, then this property can only be that of *eating rice*. However we can also get a non contradictory reading which is not compatible with the context variable C being made dependent on $[\![\lambda x[R(x, \text{rice})]\!]$. Instead the contrast is between *eating rice* and *eating staples other than rice*, in other words, $[\![\lambda x[\text{eat}(x,y)]\!]$. In other words, the non contradictory reading indicates that the focussed element *EAT* can be contrasted with the focussed phrase *PRODUCE* instead being associated with the constraint on the variable C and the interpretation of *only*. In the intended interpretation C, set as $C \subseteq [\![\lambda x[\text{eat}(x,y)]\!]$, does not appear to be constrained by any syntactically provided focus variable. Leaving aside the question of whether the free variable C in the case of *only* XP can be defined independently of the semantics of focus within the sentence, for instance by appealing to the pragmatics, I turn to the French data. In the case of *ne...que*, I argue, following Dekydtspotter, that syntactic constraints rather than pragmatic inferences overrule certain associations with focus. In particular Dekydtspotter proposes that a c-command requirement must hold between *que* and the focussed phrase. In its absence the association of *ne...que* with the focus element that the pragmatics should allow, cannot take place. Consider (126)

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as well as the case assignment conditions on *que*XP (eg. in (iii) the NP object cannot be licensed but a *que*NP phrase can :

(iii) je ne croyais avoir été condamné *(qu') un innocent
I believed (only) an innocent man to have been condemned)

remain to be investigated.

for instance.

(126) Il MANGE de tout mais il ne BOIT que du vin
he EATS everything but he DRINKS only wine

In (126) Dekydtspotter argues that the interpretation "the only thing he does to wine is drink it " where the context variable C is set equal to "R(x, wine)" is not available. Instead, (126) must be interpreted as "wine is the only thing he drinks". I argue that by using the (A') and (B') definitions a straightforward explanation for the resulting interpretation of *ne...que* in association with focus is possible. This follows from (A'), which specifies that the context variable C must be constrained by a focus value inside *que* c-command domain so *BOIT* being outside the c-command domain of *que* does not qualify. On the other hand *vin* inside the c-command domain of *que*[38] makes a relevant contribution towards fixing the value of the context variable C (i.e., $C \subseteq \{\lambda y[drink(y,x)]\}$). Deriving the non contradictory interpretation available to (127) the French counterpart of (126) appears to be equally unproblematic.

(127) ceux qui PRODUISENT du riz n'ont que MANGÉ du riz
those that PRODUCE rice only EAT rice

The c-command domain of *que* includes $[\text{mange du riz}]_F$, $[\text{mange}]_F$ and $[\text{riz}]_F$. In Rooth's (1992) analysis in order to get a non contradictory reading C must not be made dependent on $[\text{mange}]_F$ therefore the only alternative left here is $[\text{riz}]_F$. $[\text{riz}]_F$ is a possible choice under a c-command analysis of the focus phrase by *que*.
Dekydtspotter also notes that in the clitic counterpart of the full NP *riz* in (128) only the contradictory reading is available.

(128) ceux qui PRODUISENT du riz n_i'en ont que MANGÉ pro_i.
those that produce rice only ate it

Under Sportiche's (1992) analysis the clitic is base generated in a position outside the c-

[38] The capital letters here may be misleading since *que* receives the relevant focal stress in most instances.

command domain of *que* and forms a chain with a pro form. On the assumption that empty categories do not qualify as foci, little pro is not a possible candidate for focussing[39]. This hypothesis correctly predicts that only the contradictory reading will be available. That syntax is involved in determining the choice of focus also explains the ill-formedness of (129):

(129) *je ne l_i'ai aperçu que pro_i
I have only seen her

(129) contrasts with (130a) and (130b) which are both well-formed derivations.

(130) a. je n'ai aperçu qu'elle
I have only seen HER
b. je ne l_i'ai qu'aperçu pro_i
I have only SEEN her

According to the revised version of Rooth's theory of association with focus which integrates some elements of syntax the data is explained as follows. In (130a), *que* c-commands the pronoun *elle* hence *elle* qualifies as the focus element. In (130b), the verb *apercu* and *pro* are both in the c-command domain of *que,* however only *apercu* can be selected as a potential focus constituent since non overt categories do not qualify. (130b) also shows that a clitic pronoun can "raise out of "(form dependencies across) a *que* phrase without leading to ungrammaticality. The ill-formedness of (129) therefore cannot be explained by some narrow syntactic constraints such as the notion of barrierhood as suggested by Azoulay-Vicente. On the other hand, if we assume as before that the identification of focus must take place in the syntax, and requires that an overt constituent be in *que* c-command domain then (129) can be ruled out on the basis of a violation of that requirement. In (129) *que* only c-commands little pro therefore there is no candidate with which *ne...que* can associate in the syntax, and the sentence is predicted to be ill-formed.

[39]Under Sportiche's (1992) clitic analysis we have to drop "the (non-obvious) hypothesis that there are no PF-LF interactions"(Chomsky 1995:390).

Conclusion

To conclude, I propose to summarize the main points of the structural and semantic analysis of Standard French sentence negation and association with focus that I have argued for.

1. The Structural Representation of Sentence Negation in StF

We started from the premise that sentence negation structurally reduces to a Spec-Head relation under a functional projection called the NegP; the two part negation *ne...pas* of Standard French being its hallmark. We have seen that the relation between the neg specifier and the neg head can be expressed either at D-structure by base generating the two morphemes of negation in that configuration (Pollock 1989; Ouhalla 1990); or it can be expressed at LF or S-Structure through the Neg Criterion (Zanuttini 1990; Haegeman 1995):

(1) Neg Criterion:
A neg-operator must be in a Spec-Head configuration with an X [neg]
An X [neg] must be in a Spec-Head configuration with a neg-operator

In chapter 1 and chapter 2, we introduced evidence that dispute either of these two assumptions in standard French.

In chapter 1, we made the hypothesis that the locus of the instantiation of sentence negation in NC languages is at least as high as tense. This locus was identified with the overt position of *ne*, and not that of *pas*. Furthermore, we argued that, in standard French, an abstract NegP and a neg operator could not occur in this position since it precisely corresponds to the merger configuration of the subject and finite verb. In other words, elements distinct from clitics are precluded from this position. We proposed therefore that sentence negation in standard French is realised as an abstract neg feature on the Agr (or Tense under Rouveret's and Nash's (1997) assumptions) projection. This was shown to also be consistent with Laka (1990) who proposes that sentence negation is realised as a neg feature on a more abstract projection ΣP. We envisaged but ultimately rejected moving *ne* from a lower NegP to its surface position. *Ne's* movement to AgrP is independent from the verb as shown by the infinitival structures and it can only be motivated by assuming that Agr^0 is specified for a

strong neg feature. In other words, if *ne* moves from a lower NegP to check a strong neg feature on Agr^0 two separate loci for the instantiation of sentence negation would be involved; contrary to facts.

In chapter 2, we have adopted Ladusaw's (1992) neg licensing requirement which can be formulated as follows:

(2) In order to legitimise an abstract negative operator, an NC term, irrespective of its X-bar status, must c-command the VP in the overt syntax.

As a result, we dropped the Neg Criterion's assumption that a X^{max} and a X^0 categories are complementary to each other. We then reformulated (2) in the checking theory as (2'):

(2') The target neg feature which c-commands the VP is strong

The target neg feature is a strong feature therefore an NC term must be in a Spec-Head or Head-Head configuration with the target feature before Spell-Out. Although we have shown that this neg checking analysis does not generalise well to wh-dependencies, it allowed us to insure that the constraint on the realisation of sentence negation applies at a unique "level" of the derivation (ie. the overt syntax).

A single negative morpheme can express sentence negation. Consequently, an explanation needs to be provided for the cases where sentence negation is realised as a two parts negation. Following Ladusaw (1992), I proposed that one of the morphemes of sentence negation has a purely structural function: it is inserted to satisfy the neg licensing requirement in (2) which otherwise would not be met

Furthermore, we argued that the locus of sentence negation in the syntax not only c-commands the VP, but also the tense projection where adverbs do not occur as a matter of fact. This explained why Romance negative adverbs in French and Italian fail to meet the neg licensing requirement although they c-command the VP.

2. The syntax of Locality of NC dependencies

In chapter 2, we looked at whether a movement or a non movement analysis accounts for the locality constraints displayed by negative dependencies.

Given a semantic account of sentence negation where the morphologically negative elements are not negatives but restricted variables[1] a movement approach is not motivated by the semantics. A binding analysis would therefore be prefereable. Nevertheless, negative dependencies possess the characteristics of movement. We found that whenever NC terms are inside a sentential or DP subject they are subject to the left branch condition. The wh-islands and ECP effects displayed by NC dependencies also show that we must be dealing with movement dependencies. This implies that the syntax of NC dependencies is divorced from the semantics of NC terms. I proposed thus that NC dependencies should be subsumed under a morphologically driven neg feature movement analysis.

3. Expletive-Negatives and the Principle of Full Interpretation

In chapter 3 we looked at the status of the *ne* element. We established that the properties of being semantically vacuous and being a member of a non trivial chain are the basic properties of expletives with reference to the A-expletive *there/it* and X^0 expletive *do* in the *do* support structures. We argued that these two properties are also shared by the element *ne*. Namely, *ne* alone does not make any independent contribution to interpretation. In order to express sentence negation, *ne* must combine with other NC terms. We concluded on the basis of this evidence that *ne* is an expletive. We also showed that *ne* possesses the property of being a scope marker unlike the expletive *there/it*. Nevertheless we argued that expletives can be scope markers since expletives have what Chomsky (1995) describes as "some residual content".

The analysis of *ne* as an expletive predicted that *ne* cannot be free standing although it satisfies the neg licensing requirement in (2) and thus provided us with an explanation as to why sentence negation in StF is realised as a two parts negation. Expletives, we argued, must be eliminated at the interface with the interpretive system since they are irrelevant to interpretation (principle of full interpretation (FI)). Assuming that deletion of material after Spell-Out is not an option, one way to proceed is to assume a Form-Chain operation takes place. The Chain and not its individual parts is then subject to the principle of FI. That *ne* cannot be free standing, but must combine with an appropriate associate NC term therefore directly falls out from *ne*'s status as an expletive together with the constraint imposed by FI

[1]They merely license a negative operator invisible to the syntax.

on syntactic derivations.

This more constrained definition of expletives rules out the NC terms *no/n't/non* although they do not appear to have any denotation. We have argued however that connectedness effects offer empirical evidence that *no/n't/non* which rescue locality violations should be distinguished from the expletive element *ne* which does not.

Finally, we explored ways of accounting for the two parts *personne ne* negative structure. We considered an account in terms of the expletive properties of *ne* (Di Sculio and Tremblay 1995) and in terms of the availability of dynamic agreement in the sense of Rizzi (1996). We also looked at some alternatives based on *ne*'s clitic status, and, in particular, how *ne*'s incorporation could be viewed as a parametrised neg feature checking configuration following a proposal by Rizzi and Roberts (1989) to account for French subject clitic doubling in direct questions.

4. The *Ne...Que* Structure in Association with Focus

We started with the hypothesis that *ne* is an expletive scope marker and that movement of features is driven by the morphology to constitute the background of the analysis of the *ne...que*XP^f structure. More precisely, we assumed that *ne* is an expletive and *que* has the meaning of the quantified expression ‖*only*‖. In other words, the meaning of the *ne...que*XP^f structure is not derived from combining the negative interpretation of *ne* with *que* 's interpretation.

We also set aside a QR account of *que*XP^f which is based on the assumption that the semantic type assigned to *que*XP^f is equivalent to that of quantifier phrases. We argued instead that the *ne...que*XP^f structure is interpreted in situ as proposed in Rooth's (1992) ; the locality constraints of the construction being derived as previously from feature movement to the AgrP. In the case of the *ne...queXP* structure we assumed that the strong feature was a focus feature.

Finally, the additional constraints on the *ne...queXP* structure were not derived as before by positing an empty category in the syntax. We argued instead that the structure of association with focus *ne...que* requires that a focus phrase be available in the syntax. In particular, *que* must c-command the focus element in the overt syntax. As a consequence, pronominal clitics do not qualify as focus elements. The characterisation of *ne* as an expletive with sentential scope marking properties also ruled out configurations where *que* c-commands the expletive

ne and where a local scope interpretation of the focus particle *que* was possible (cf. German *nur* and English *only*).

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