

Expletive Negation, Negative Concord and Feature Checking*

M. Teresa Espinal

Universitat Autònoma de Barcelona. Departament de Filologia Catalana
08193 Bellaterra (Barcelona). Spain
Teresa.Espinal@uab.es

Received: March 3rd 2000
Accepted: October 3rd 2000

Abstract

The aim of this paper is to explore some aspects of the syntax-semantics interface representations which correspond to expletive negation (EN) and negative concord (NC). I shall postulate that a syntactic operation of logical absorption, conceived as feature checking, is needed in the theory of grammar in order to account for both phenomena. EN instantiates a nonnegative context; it will be characterized by means of a covert negative feature movement, from either a light negative marker or a negative indefinite, up to a nonveridical X^0 head. NC instantiates a negative context; it will be characterized as either category movement (when the Spec-Head relation holds in explicit syntax) or feature movement (when the Spec-Head relation does not hold in overt syntax) to an averidical Neg^0 head.

Key words: syntax, semantics, negation, Catalan, Spanish.

Resum. *Negació expletiva, concordança negativa i comprovació de trets*

L'objectiu d'aquest treball és explorar alguns aspectes de les representacions de la interfície sintacticosemàntica que corresponen a la negació expletiva (EN) i a la concordança negativa (NC). Postularé que una operació sintàctica d'absorció lògica, concebuda com a verificació de trets, és necessària en la teoria de la gramàtica per tal de donar compte d'ambdós fenòmens. La EN apareix en un context no negatiu i la caracteritzaré mitjançant el moviment encobert d'un tret negatiu des d'un marcador negatiu lleuger o d'un indefinit negatiu a un nucli X^0 no verídic. La NC apareix en un context negatiu i la caracteritzaré com el moviment d'una categoria (quan hi ha una relació d'especificador-nucli a la sintaxi explícita) o com el moviment d'un tret (quan la relació d'especificador-nucli no es dona a la sintaxi explícita) a un nucli Neg^0 averídic.

Paraules clau: sintaxi, semàntica, negació, català, espanyol.

* This paper has benefited from two project grants (PB93-0893-C04-01 and PB96-1199-C04-02) supported by the Spanish Ministry of Education and Culture. I would like to specially thank my colleagues M. L. Hernanz, J. Macià, C. Picallo, G. Rigau and J. Solà for their observations to a previous manuscript of this paper. I would like to thank the audiences at the Third Workshop on the Syntax of Central Romance Languages (Girona, December 1996) and at the Going Romance conference (Groningen, December 1997) for helpful comments.

The content of this paper remains basically as was presented to these conferences.

Table of Contents

1. Aim	4. Similarities and Differences between EN and NC
2. EN. Structural Configuration	5. Related Issues
3. NC in Catalan and Spanish	References

1. Aim

In this paper I shall first present a brief grammatical analysis of the sentences in (1) and (2) (see below), by postulating that their syntactic structure contains a head—which can be non-overt—defined with an inherent negative formal feature (from now on, F_{Neg}).

Second, I shall describe some similarities and differences between configurations with EN and configurations with NC. Theoretical notions such as feature checking, feature attraction, and feature strength of negation, with regard to non-veridical and averidical negative features, will become relevant in order to account for the phenomenon of negative absorption in natural languages.

Third, I shall explore several issues related to this analysis of EN and NC in the theory of grammar.

Some representative examples of EN and NC, taken from Spanish, are given in (1) and (2).

(1) Expletive Negation (EN)

- a. *Preferiría salir con vosotros que (no) estar
prefer+COND.1sg go-out with you than not be
trabajando todo el fin de semana.
working whole the end of week
'I would rather go out with you than be working the whole weekend'*
- b. *¡A cuántas personas (no) habrá matado este dictador!
to how many people not have+FUT.3sg killed this dictator
'So many people must have been killed by this dictator!'*
- c. *¡(No) se lo habré dicho veces esto! ¹
not him_{DatCL} it_{CL} have+FUT.1sg told times this
'I must have told him this so many times!'*

(2) Negative Concord (NC)

- a. *Nadie dijo nada.
nobody said.3sg anything
'Nobody said anything.'*
- b. *No me llamó nunca.
not me_{CL} called.3sg never
'He never called me.'*

1. I thank M. Lluïsa Hernanz for bringing this example to my attention.

Notice that Spanish, like Catalan, typically shows a light negative marker *no* in preverbal position. A light negative marker refers to its head status (Haegeman 1995), and to the fact that it appears preverbally and is always adjacent to the verb. The same negative marker *no*, is used for pure sentential negation and nonnegative negation.

2. EN. Structural Configuration

EN has been characterized as a natural language phenomenon induced by specific lexical items (such as Italian *finché*, and Catalan *més* in (3)) appearing under specific structural conditions.

(3) Italian

- a. Resto *finché (non)* arriva qualcuno.
 stay.1sg until not arrives somebody
 'I'll stay until somebody arrives.'

Catalan

- b. Val *més* que vingueu *que no* que us quedeu
 better that come.SUBJ.2pl than not that you_{CL} remain.2pl
 sols.²
 alone
 'It's better you come than you stay on your own.'

These data illustrate not only the fact that the negative marker (*non, no*) appears in specific syntactic environments, but also that this negative marker makes no effective contributions to the interpretation of the whole string containing this constituent (see the English glosses). What is characteristic of expletive negation is the fact that a negative item, which lexically contributes to negation, does not modify the truth value of the proposition in which it occurs.

The relevant syntactic configuration for (1a) and (3) is given in (4):³

- (4) [... [_{XP} X^o [_{CP} C^o [_{NegP} Neg ...]]]]

Besides the classical set of examples illustrating EN, natural languages offer another instance of non-negative negation in degree *wh*- sentences.

(5) Spanish

- a. ¡A cuántas personas *no* engañaría en su
 to how many persons not deceive+COND.3sg in his/her
 juventud!
 youth
 '(S)he must have deceived so many people in his/her youth!'

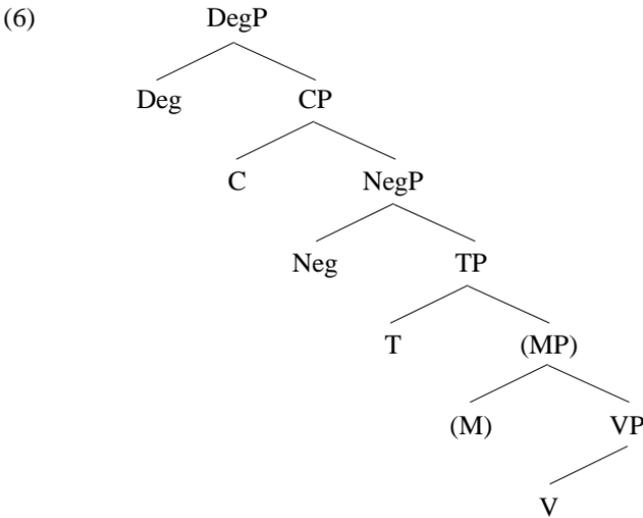
2. The nonoptionality of the negative marker in this particular example must be related to the two contiguous *que* complementizers at the output string.
3. X^o is the lexical item whose inherent FF license an expletive reading for the negative word. This occurs when minimality is respected among the contiguous nodes X-*que*-Neg within the tree, and when there is no logical operator intervening between X^o and Neg at the level of LF (Espinal 1992).

Catalan

- b. Quin desastre *no* heu fet!
 what disaster not have.2pl made
 ‘What a mess you’ve made of everything!’

It seems entirely plausible that the syntactic configuration corresponding to the sentences which license nonnegative negation in *wh*-exclamatives (such as (1b,c) and (5)) should be analysed in similar terms to clausal structures licensing EN (such as (1a) and (3)) (see Espinal 1997). In accordance with these hypotheses I have postulated a degree projection above CP with an implicit affective Deg (defined with the feature F_{Neg} (besides other FF), since it licenses EN).⁴

The relevant syntactic structure of degree *wh*-exclamatives which license EN is given in (6).⁵



This hypothesis is supported by the fact that sentences such as (1b) and (5) show cross-categorical degree, in the sense that gradability (more specifically, high degree) applies over different categories of the sentence: the *wh* quantifier is interpreted as an affective quantifier, it is non-specific, and has wide scope over other quantifiers; the verb, although in indicative, has an intensional interpretation (see

4. The basic contrast between classical instances of EN and EN in degree *wh*-sentences is a result of the fact that in the set of examples given in (1b,c) and (5) there is no apparent lexical item whose logical content might be said to be responsible for the phenomenon of EN. The constituent which licenses EN cannot be the *wh*-word, for it is neither a comparative marker denoting inequality nor an affective predicate (Ladusaw 1980, Haegeman 1995), and it is absent in (1c). Furthermore *wh*-words are not specialized for exclamatives.
5. The order $NegP < AgrP$ is not considered as relevant at this point. MP is postulated for the nonfuture modal interpretation of the future marker (see examples (1b,c)).

the glosses in (1b) and (5)); and the negative marker does not entail falsity of the proposition.⁶

In support of postulating a functional category DegP we can adduce various output conditions, since a sentence with an intensifier Deg constituent has specific suprasegmental and semantic properties which build into particular phonetic and semantic interpretations. In addition to that, in support of postulating a DegP projection above a CP projection consider the following four arguments (Espinal 1997).⁷

First, the sentences in (1b) and (5), always have a *wh*- expression in clausal onset position. The only way to avoid postulating a DegP would be to distinguish a CP₁ (+ WH(from a CP₂ (+ WH, + DEG(. However, since most *wh*- expressions may or may not be inherently lexically specified as degree markers, and furthermore there are degree sentences which do not have a *wh*- expression, but nevertheless license a degree intensification on a bare plural noun (see the example (1c)), the best scenario seems to be one which dissociates the concept of degree from the concept of complementizer, and where the Deg projection is separated from the C projection.

Second, it should be noted that exclamative sentences entailing EN are always independent clauses. If the degree operator was fused with the C, then we would expect to find expletive exclamatives in subordinate clauses, which, in fact, is not the case. Therefore, Deg should be separate from C.

Third, Deg must be higher than C in clause structure, since the nonspecificity and unboundedness of *wh*- expressions in exclamatives can only be explained if these *wh*- expressions are affected at the level of LF by some constituent of the clause, under whose scope they are licensed, which is distinct from the CP projection postulated for questions.⁸

Fourth, some overt degree operators which seem to alternate with the covert degree position in (6) exist in both Catalan and Spanish. I am referring to positive degree words such as *bé*, *bien* and *si* 'really, so, well, highly', which do not license EN.⁹

6. Furthermore, this hypothesis should be related to the observation that *wh*- expressions show structural similarities to focused expressions in a number of languages, among them Hungarian and Greek. There exist, however, some important differences between focalized constituents and *wh*-constituents with inherent degree modification: (i) the latter must obligatorily move to sentential initial position and cannot remain *in situ*, (ii) there can only be one degree constituent within a sentence, (iii) the identificational interpretation of focalized constituents should be contrasted with the degree interpretation of *wh*- constituents at clause onset position of exclamative constructions, and (iv) sentences with a focalized constituent do not license by themselves EN.
7. See Postner – Zanuttini (1998) for an analysis of exclamatives according to which they have a factive CP higher than the CP postulated in questions.
8. See Bosque - Masullo (1996) for a study on the relation between gradability and unboundedness.
9. See Grevisse (1986) for a descriptive analysis of *bien* and *si* in French as degree adverbs. They are claimed to be linguistic expressions which affect the intensity of an action expressed by a V, of a quality or a property expressed by an A or an Adv.

(7) **Catalan**

- a. *Bé* que s' ho ha cregut!
 really that *se*_{RefCL} it_{CL} has believed
 '(S)he really did believe that!'

Spanish

- b. *Bien* me has engañado.
 really me_{CL} have.2sg deceived
 'You really did deceive me!'
- c. ¡*Si* será atrevido!
 very be+FUT.3sg daring
 '(S)he is so daring!'

These linguistic expressions may be taken as evidence for a DegP, even though they do not license EN. Close to them, other degree expressions contain negative features which make them optimal licensers for EN; for example, overt and covert degree markers of the sort exemplified in (3b) and (5). My analysis will rely on having negative features on these heads.

Let me now briefly consider the syntactic structure corresponding to NC data.

3. NC in Catalan and Spanish

NC is characterized as a linguistic phenomenon spread over various items within a sentence. NC is involved in syntactic contexts where negation is interpreted just once, although it is expressed more than once. In both Catalan and Spanish it involves negative markers such as *no* and other constituents (e.g. n-words, and negative indefinites in general) defined by means of an abstract formal feature F_{Neg} , although they need not be morphologically negative (consider the case of most Catalan n-words).

Unlike Germanic languages, it is well-known that Romance languages show the phenomenon of NC. They have the possibility of combining a sentential negative marker with negative indefinites, in such a way that the negative constituents do not cancel each other out, but they jointly express a single negation. Some relevant data is given in (8) and (9).

(8) **Catalan**

- a. No ha vist a ningú.
 not has seen to anybody
 '(S)he has seen no one.'
- b. Ningú (no) ha vist res.
 nobody not has seen anything
 'Nobody has seen anything.'

(9) **Spanish**

- a. No ha visto a nadie.
not has seen to anybody
'(S)he has seen no one / (S)he has not seen anybody.'
- b. Nadie (*no) ha visto nada.
nobody not has seen anything
'Nobody has seen anything.'

The postverbal negative constituent *a ningún, a nadie* 'no one' is obligatorily preceded either by a negative head *no* or by another negative item. The examples with *no* and postverbal negative constituents are similar to sentences in which *no* expresses sentential negation, in that in both cases pre-verbal *no* is obligatory. Notice the lack of parentheses on *no* in (8a) and (9a).

Examples (8b) and (9b) illustrate a preverbal negative item with optional preverbal *no* in Catalan and a non-overt negative marker in modern standard Spanish. However, it should be noted that both in Old Spanish and in some dialectal variants (consider the data in (10)) *no* is overt, regardless of the preverbal or postverbal position of negative elements, which Suñer (1995) takes as an argument for a uniform negative polarity item status of negative elements in Spanish.

(10) **Old Spanish** (Llorens 1929)

- a. Ninguno non los ose defender.
nobody not them_{CL} dares defend
'Nobody dares to defend them.'

Dialectal Spanish (Sánchez Ferlosio's *El Jarama*)

- b. ...para que ya nunca nadie no venga jamás
so that anymore never nobody not come+SUBJ.3sg ever
a arreglarse a mi casa...
to get-ready in my house
'...so that nobody never ever would come to get ready in my home anymore...'

These examples have been accounted for in the literature by basically adhering to one of two perspectives. A first hypothesis postulates a NEG-criterion (Zanuttini 1991, Haegeman-Zanuttini 1991, Haegeman 1995), conceived as a universal well-formedness condition on syntactic representations, which cancels the negative meaning, and predicts that n-words are inherently negative expressions which have the properties of universal quantifiers (i.e. n-words are involved in an absorption operation when a negative operator has scope over a number of variables). A second hypothesis conceives NC as a polarity construction (Bosque 1980, 1994; Laka 1990, 1993), and predicts that n-words are polarity items which are licensed only under an operator-variable structure.¹⁰

10. See Espinal (2000) for a recent analysis on the status of n-words in Catalan and Spanish. In this paper it is argued that n-words are indefinites incorporated into a numeral meaning (0), and weak quantifiers, underspecified for quantificational force.

In the next section I shall compare EN with NC and will show that movement of negative features (sometimes strong negative features) to specific targets provide important insights into the relation between the syntactic structure and the semantic interpretation of these representations.

4. Similarities and Differences between EN and NC

The question I would now like to approach is what sort of relation, if any, exists between EN and NC. I will claim that both these constructions share:

- clause-boundedness and strict structural locality to an $X^{\circ}/\text{Neg}^{\circ}$ head with specific morphosyntactic features,
- negative absorption, conceived as feature checking, and
- sensitivity to nonveridicality, of which a subset is averidicality.

4.1. Clause-boundedness and strict locality

From a structural perspective the similarity between EN and NC stems from the fact that both these phenomena require not only clause-boundedness but also strict locality to some X°_{FNeg} (which in section 4.3 will be claimed to be a nonveridical operator in EN structures and an averidical operator in the case of NC structures).

Consider the examples in (11) and (12).

(11) Catalan

- a. *Abans* que passi (**gairebé/absolutament*) res, jo me
before that happens almost/absolutely anything I me_{CL}
n' aniria. (EN)
*en*_{CL} go+COND.1sg
'Before anything happens, I would leave.'
- b. Em *temo* que *no* escullin nou director. (EN)
me_{CL} am-afraid that not elect+SUBJ.3pl new director
'I'm afraid that a new director would be elected.'
- c. **Abans* [que contesti [que passa res, jo
before that answer+SUBJ.3sg that happens anything, I
me n' aniria]
me_{CL} *en*_{CL} go
- d. **Em temo* [que diguin [que no escolliran nou
director]]
me_{CL} afraid that say+SUBJ.3pl that not elect+FUT.3pl new
director

(ONLY GRAMMATICAL AS NEGATIVE)

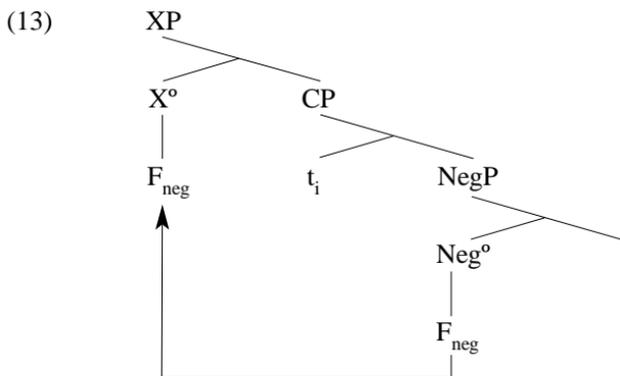
- (12) a. *No funciona (gairebé/absolutament) res* com hauria
 not works almost/absolutely anything as have+COND.3sg
 de funcionar. (NC)
 of work
 ‘(Almost/absolutely) Nothing works as it should.’
- b. *Res no funciona* com hauria de funcionar. (NC)
 anything not works as have.COND.3sg of work
 ‘Nothing works as it should’
- c. **Res és veritat [que no funciona* com hauria
 nothing is true that not works as have.COND.3sg
 de funcionar.
 of work

At his point it is important to notice that *res*, although it derives from a positive Latin noun, can be interpreted as either anything or nothing, depending on context. Similarly, *no* may also get a nonnegative reading depending on the syntactic context; in fact it is nonnegative in (11b) but fully negative in (12a,b).

Furthermore, in (11a) *res* cannot be preceded by *almost/absolutely* and has an existential nonnegative reading, whereas in (12a) *res* can be modified by these adverbs and has a negative reading.

Examples (11c,d) are ungrammatical under an expletive reading because both the negative indefinite and the light negative marker are embedded within a second subordinate clause and are not adjacent to X° (*abans* in (11c) and *temo* in (11d)).

In minimalist terms I would like to claim that in EN constructions, once C movement has applied (see a lexical form such as *finché* in (3a)), EN involves feature checking, that is, covert movement of a F_{Neg} to check another F_{Neg} , under structural closeness.¹¹ See (13).



11. In Espinal (1992) it is argued that the CP projection, whose head *que* lacks inherent referential and categorial (i.e. (N, (V) features), in addition to not blocking government —due to its intrinsic

This movement takes place at the level of LF because in this configuration X° , specified from the lexicon with a particular F_{Neg} , that identifies it as the target of a dislocation property, attracts the F_{Neg} that identifies the thing that is to be dislocated: either a Neg head or an n-word, under the Last Resort and the Minimal Link conditions (Chomsky 1995:280,297,311).

- (14) a. *K attracts F if F is the closest feature that can enter into a checking relation with a sublabel of K*
- b. *Last Resort Condition*
Move F raises F to target K only if F enters into a checking relation with a sublabel of K
- c. *Minimal Link Condition*
K attracts (only if there is no (, (closer to K than (, such that K attracts (

According to these definitions, EN can be said to illustrate the relevance of a feature attraction operation motivated by the properties of the target. My claim is that the feature checker in the target category is a F_{Neg} with a specific semantic property: nonveridicality. Therefore, EN involves dislocation of the F_{Neg} characterizing the polarity items *res* and *no* in (11a,b), and adjunction of this feature to the X° head (*abans*, *temo*). Once this movement has taken place, absorption applies (see section 4.2).

On the other hand, in the case of NC structures, clause-boundedness between the negative marker and the n-word at syntax, and strict locality between the negative features of these constituents at the level of LF are required in order to account appropriately for the paradigm in (12), as well as for the averidical semantic dependency that holds between the two constituents in italics (that is, for the fact that they entail the falsity of *p*).¹²

Concerning NC structures I am going to assume that feature checking is forced by the strength of the F_{Neg} of specific negative items in the checking domain. Following Watanabe (1997), since in NC structures F_{Neg} is interpretable, the movement involved in NC must take place in overt syntax, and is triggered by the strong negative feature of the phrasal expressions, not by the Neg° head. Phrasal expressions with the strong F_{Neg} need a head for the purpose of checking, but not viceversa, since the negative marker *no* in Catalan and Spanish can occur without phrasal negative expressions.

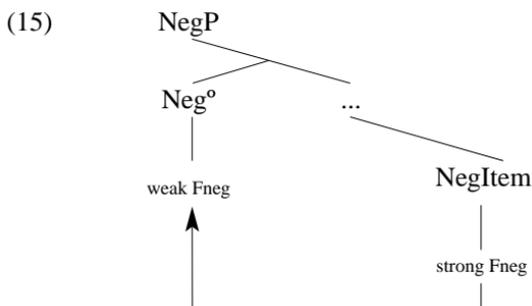
properties, does not block absorption of negation, and seems to be invisible at LF. The complementizer bears temporal information, since the TP of the subordinate clause (in the subjunctive) is bound to the referential features of the main clause. Therefore, it is claimed that C_T cannot be deleted and is submitted to a process of raising and incorporation (i.e. category movement) to the lexical head which governs it, either in the syntax or at LF. The output of complementizer raising is the input to a logical absorption operation.

12. This claim can be made compatible with the observation already described in the literature (Quer 1993 and Giannakidou 1997) that certain contexts (such as mood and specific selecting predicates) allow long-distance licensing of negative items.

Elimination of superfluous F_{Neg} is part of the interpretive processes contingent upon movement to a Neg° head. In Catalan, movement involving NC items makes use of either adjunction through pure F movement (see (12a)), or an Spec-Head relation with a Neg° head—which can be full— via category movement (as illustrated in (12b)).

In the Spanish example (9b), like Italian, the null Neg° head checks the features of the negative item through category movement, for the Spec-Head relation holds in overt syntax. In (9a) the Neg° head, represented by *no*, checks the features of the negative polarity item through feature checking, since the Spec-Head relation does not hold in overt syntax.

In sum, NC in Romance languages illustrates the relevance of movement motivated by feature strength. The output of this movement is adjunction to either Neg° (as in (12a)) or to the maximal projection of Neg (as in (12b)), depending on whether either F movement or category movement is the relevant operation. See the structural representation in (15).



To summarize, the phenomenon of EN involves the process of F attraction to a target holding a particular set of semantic features, and can be accounted for as a case of F movement in covert syntax, whereas the phenomenon of NC involves either category or F movement in overt syntax, motivated by the strength of the F_{Neg} .¹³

4.2. Negative Absorption as Feature Checking

In (16) I quote Giannakidou's conception of the NEG-criterion and Watanabe's approach to absorption, which seem to be both relevant to the analysis of EN and NC postulated here.

13. I leave for future research the conditions that control the application of either category or F movement in overt syntax.

- (16) a. Giannakidou (1997:182) reinterprets «the NEG criterion as an agreement requirement with respect to averidicality».
- b. Watanabe (1997) argues that «absorption can be regarded as a consequence of overt movement of pure features» (p.19). «Movement involving NC items makes use of either adjunction through pure feature movement or the Spec-head relation via category movement» (p.13). «The movement involved in NC takes place in overt syntax and it is triggered by the strong feature of the phrasal expressions, not by the Neg head» (p.14).

In the light of the preceding discussion, absorption of negation (as defined in Espinal 1992) might be reinterpreted in feature checking terms, that is, as elimination of superfluous negative features. Logical absorption is to be understood as feature checking, and feature deletion of either sensitive F_{Neg} (sensitive to non-veridicality, in the case of EN) or redundant F_{Neg} (in the case of NC) at the level of LF. This logical deletion operation is part of the interpretive processes contingent upon movement.

- (17) α absorbs β , $\alpha = X^{\circ}_{FNeg}$ and $\beta = F_{Neg}$ of a negative item
 iff
 with regard to a configuration such as
- (i) [_{XP} Spec [_{X'} X^o_{FNeg}]]
 - (ii) β has been Attracted/Moved to either Spec,XP or to X^o

In the output LF configuration (and (mutually c-command one another, for there are no maximal projection boundaries between them. The process of negative absorption corresponds to the factorization of one single and abstract expression of negation (in terms put forward by Ladusaw 1992, 1996), which in the case of natural language configurations licensing EN is associated with a head X (defined with a nonveridical negative feature (F_{Nonver}), and in the case of syntactic configurations licensing NC is associated with the Neg^o head defined with an averidical negative feature (F_{Aver}).

Thus, logical absorption of negation, conceived as feature checking, after either feature or category movement has applied, provides an explanation of the fact that certain negative constituents in specific configurations are not licensed as independent negative concepts. Furthermore, the operation of feature checking seems to provide an interesting line of research on the syntactic relation between two apparently different syntactic structures: EN and NC.

4.3. Sensitivity to Nonveridicality

The next hypothesis I would like to point out is that EN and NC are manifestations of different kinds of sensitivity to negation, which can be accounted for by means of the same theoretical tools.

Since what is characteristic of EN is the presence of a negative expression (either a negative marker *no* or an n-word) which is absorbed by an attracting head, my claim is that EN is obtained when the negative marker is interpreted as a polarity item. Let us consider the following definitions:

- (18) a. *Polarity item* (Giannakidou 1997:14,16)
- (i) A polarity item *a* is an expression whose distribution is limited by sensitivity to some semantic property *b* of the context of appearance;
 - (ii) The semantic property *b* need not be polar
- b. *Condition on PI-licensing*
- (i) A polarity item *a* is licensed iff (a) the context provides some expression *z* which supplies the semantic property *b* *a*'s proper interpretation depends on, and (b) *a* is found in the semantic scope of *z*
 - (ii) *z* is said to be the trigger of *a*

Accordingly, to claim that the negative marker in EN structures is a polarity item means that it is a sensitive expression, that is, an expression that —according to the definitions in (18)— can only be licensed by a property *b* present in the context of grammaticality, and this property is nonveridicality.¹⁴ That is, in EN the negative marker is licensed under the scope of a nonveridical operator.

Following Montague (1969) and Zwarts (1995), veridicality and the related notions (nonveridicality and averidicality) are viewed as properties of propositional operators.

- (19) *(Non)veridicality* (Zwarts 1995:287)
- Let *O* be a monadic sentential operator. *O* is said to be *veridical* just in case $Op \Rightarrow p$ is logically valid. If *O* is not veridical, then *O* is *nonveridical*. A nonveridical operator *O* is called *averidical* iff $Op \Rightarrow \sim p$ is logically valid

Following Giannakidou (1997), (non)veridicality can be assigned the context dependent definition given in (20).

- (20) *Context dependent (non)veridicality* (Giannakidou (1997:110))
- In a context *c*,
- (i) A propositional operator *Op* is veridical iff the truth of *Op p* in *c* requires that *p* be true in some model *M(x)* in *c*
 - (ii) An operator *Op* is nonveridical iff the truth of *Op p* in *c* does not require that *p* be true in any model *M(x)* in *c*
 - (iii) A nonveridical operator *Op* is averidical iff the truth of *Op p* in *c* requires that *p* be false in any model *M(x)* in *c*¹⁵

These definitions view averidical operators as a subset of the nonveridical (AVERIDICAL (NONVERIDICAL)), so every averidical operator is also non-

14. For connections between mood and non-veridicality, see Quer (1998).

15. *M(x)* stands for some individual's worldview and represents the epistemic status of that individual.

veridical, but not viceversa. Furthermore, they relativize (non)veridicality with respect to context. We can infer from them that a propositional operator is veridical iff Op entails p , that is, whenever Op is true, p is true too. Op is nonveridical iff Op does not entail p , that is, whenever Op is true, p may or may not be true. Nonveridical operators do not entail the falsity of p . Entailing the falsity of p is the defining property of averidical operators.

In EN the negative marker is to be thought of as a polarity item sensitive to a specific semantic property: the nonveridicality supplied by *before*, *until*, comparative operators denoting inequality, a specific high degree operator, and some negative and adversative predicates. When either a light negative marker or an n-word appears in the semantic scope of an expression which supplies a nonveridical property, then the negative marker is licensed as nonnegative (or expletive) and n-words make manifest a polarity item status.¹⁶ This is illustrated in (21a-b).

(21) **Catalan**

- a. *Abans* que (no) et vegin, vés- te' n.
 before than not you_{CL} see+SUBJ.3pl go+IMP you_{CL} en_{CL}
 'Before anybody sees you, you should go.'
- b. *Abans* que et vegi ningú, vés- te' n.
 before than you_{CL} see+SUBJ.3sg anybody go+IMP you_{CL} en_{CL}
 'Before anybody sees you, you should go.'

Notice, furthermore, that in (21) *abans* 'before' is nonveridical with respect to the proposition expressed in the subordinate clause, in the sense that 'anybody seeing you' may or may not be true.¹⁷

16. See Espinal (2000) for an analysis predicting that languages (such Catalan and Spanish) which allow the occurrence of n-words in polar and negative contexts, as well as in expletive and negative concord structures, are those that have n-words lexically defined with a specified negative property and a variable underspecified quantificational force, subject to various licensing conditions on the LF building process.
17. EN is also allowed in the *abans* 'before' clause in those contexts where it is inferred that $\sim q$ (see example (1b)), but it is not licensed in those contexts where it is inferred that q (as illustrated in (i d)).
- (i) a. En Joan morí abans de conèixer els seus néts. ($\Rightarrow \sim q$)
 Det Joan died before of get-to-know the his grandchildren
 'Joan died before he got to know his grandchildren.'
- b. ?En Joan morí abans que no conegué els seus néts. ($\Rightarrow \sim q$)
 Det Joan died before that not got-to-know+SUBJ.3sg the his grandchildren
 'Joan died before he got to know his grandchildren.'
- c. En Joan revisà el cotxe abans de comprar-lo. ($\Rightarrow q$)
 Det Joan checked the car before of buying it_{CL}
 'Joan checked the car before he bought it.'
- d. *En Joan revisà el cotxe abans que no el comprés. ($\Rightarrow q$)
 Det Joan checked the car before that not it_{CL} bought+SUBJ.3sg

Lack of veridicality is also illustrated in (22), since this example shows that Spanish *hasta* 'until' is nonveridical with regard to its internal argument: the fact that the speaker be thrown out may or may not be true.

(22) **Spanish**

Me quedaré hasta que (no) me echen.
 me_{CL} stay+FUT.1sg until that not me_{CL} throw.3pl
 'I will stay until they throw me out.'

Similarly, expletive negation is licensed under the scope of verbs of fear (such as Catalan *témer* 'fear') and verbs of doubt, which are all nonveridical with respect to the proposition expressed in the subordinate clause. This is illustrated in (23): that it will rain may or may not be true, and the referred stories may or may not be false.

(23) **Catalan**

a. Em temo que (no) plougi.
 me_{CL} am-afraid that not rain+SUBJ.3sg
 'I'm afraid that it will rain.'

Spanish (R. Carnicer, *La Vanguardia*)

b. ¿Hay quién dude que (no) son falsas las tales
 is there who doubt+SUBJ.3sg that not are false the such
 historias?
 stories
 'Does anybody doubt the falseness of such stories?'

Finally, the high degree operator is also nonveridical with regard to the complement clause, for the proposition expressed may or may not be true.¹⁸

18. The linguistic literature on exclamatives (Elliott 1974, Grimshaw 1979) shows that positive *wh*-exclamative clauses are factives, that is, they presuppose the truth of the proposition. However, it is interesting to notice that neither Catalan nor Spanish *wh*-exclamatives which license EN can occur under the scope of a factive verb, as the following contrasts make explicit:

(i) **Catalan**

- a. És insòlit com es porta de malament!
 is unusual how *es*_{RefCl} behaves of bad
 'It is unusual how bad (s)he behaves!'
- b. *És increïble quines mentides no diu en Joan!
 is incredible which lies not says Det Joan

(ii) **Spanish**

- a. ¡Es extraordinario cuántas tonterías habrá dicho este estudiante!
 is outstanding how many stupid-remarks have+FUT.3sg said this student
 'It is outstanding how many stupid remarks may have said this student!'
- b. *¡Me sorprende cuánto no pesarán estos paquetes!
 me_{CL} surprises how much not weigh+FUT.3sg these parcels

(24) **Catalan**

Quantes mentides (*no*) deu haver dit des que estem casats!
 how many lies not must.3sg have told since that are.1pl married
 '(S)he must have told so many lies since we got married!'

To conclude, EN instantiates a nonnegative context, in which the negative marker is a polarity item sensitive to some specific nonveridical semantic dependencies. The target F_{Neg} is associated with some lexical head (other than Neg°) which has nonveridical properties. EN has been formulated as a case of covert F_{Neg} movement, from either the light negative marker or the negative indefinite, up to the F_{Neg} of the target nonveridical operator. Since nonveridicality concerns propositional operators, and averidical expressions form a subset of the nonveridical, the averidical F_{Neg} of a light negative marker or the nonveridical F_{Neg} of a negative item can be cancelled under feature checking with a nonveridical F_{Neg} of specific lexical heads.

By contrast, NC instantiates a negative context, in which the negative marker is an averidical operator which licenses negative polarity items. The target F_{Neg} is associated with the Neg° head of the clause, which has averidical properties. In the minimalist program, since negative agreement has been reinterpreted as feature checking, triggered by the strength of the F_{Neg} of the negative items in the checking domain, we have claimed that NC requires either category movement (when the Spec-Head relation holds in explicit syntax) or feature movement (when the Spec-Head relation does not hold in overt syntax) to an averidical Neg° . Once this movement has applied, a redundant F_{Neg} is absorbed.

In Section 4 I have shown that the similarity between EN and NC is important, both syntactically and semantically. Both these phenomena require clause-boundedness, strict locality and negative absorption, which, I think, is a significant conclusion in a study on the configuration of negation and the syntax-semantics interface of negative structures. There is only one NegP and a single negative marker *no* (Meibauer 1990) involved in different licensing conditions. The structural difference between EN and NC is due to the fact that whereas in NC the target F_{Neg} is associated with the Neg° head of the clause, which has averidical properties, in EN the target F_{Neg} is associated with some lexical head (other than Neg°) which has nonveridical properties. In addition to that, in EN F movement is a result of F attraction, whereas in NC category or F movement is forced by F strength in overt syntax.

Accordingly, expletive *no* is a negative lexical item whose semantic contribution is cancelled, in such a way that this marker is not licensed as an independent negative operator. This apparent imperfection of language has of course a computational function: to check the morphosyntactic and semantic properties present in the local domain. This does lead to an interesting conclusion: the negative marker *no* can be licensed differently depending on the fact that negation itself can be expressed by various means in natural languages.

This analysis has the additional advantage that it can account for the meaning relations hold in complex examples such as those in (25).

(25) **Catalan**

- a. *Abans* que *ningú* digui *res*, deixeu -me
 before that anybody say+SUBJ.3sg anything let me_{CL}
 donar -vos la benvinguda. (EN)
 give you_{CL} the welcome
 ‘Before anybody says anything, let me welcome you.’
- b. *Abans* que *ningú* no digui *res*, anul·larem (NC)
 before that anybody not say+SUBJ.3sg anything cancel+FUT.1pl
 la reunió.
 the meeting
 ‘Before nobody says anything, we’ll cancel the meeting.’

As said with regard to (21) Catalan *abans* is a lexical item which licenses PI and is nonveridical with regard to the proposition expressed in the subordinate clause. Therefore, in (25a) ‘anybody says anything’ may or may not be true, and both *ningú* and *res* are sensitive to the nonveridical semantic dependency introduced by *abans*, defined with a nonveridical F_{Neg} which attracts and checks the F_{Neg} of *ningú* and *res*. On the other hand, in (25b), in addition to the presence of *abans* and *n*-words, there is a Neg^0 head in the subordinate clause defined with an inherent averidical F_{Neg} . In this context, both category movement of the negative item *ningú* and F movement of the F_{Neg} of *res* to the Neg^0 head apply, thus building a NC structure (with F checking of negative features with regard to the Neg^0 head of the clause), thus entailing an averidical interpretation.

5. Related Issues

In this section I shall mention some issues, independently motivated, which support my analysis of EN and NC.

5.1. *The relevance of the distinction made in linguistic theory between Deg and C/Q (see the split degree system hypothesis postulated by Corver 1997)*

Notice the contrast between Spanish sentences which contain an overt degree operator (such as *si*, and *bien* ‘really, so, highly’), and sentence (1c).

(26) **Spanish**

- a. ¡Cuántas veces se lo habré dicho esto!
 how many times him_{DatCL} it_{CL} have+FUT.1sg told this
 ‘I must have told him this so many times!’
- b. ¡Si se lo habré dicho veces esto!
 really him_{DatCL} it_{CL} have+FUT.1sg told times this
 ‘I must have told him this so many times!’
- c. *Bien* de veces le he advertido. (Moliner 1982)
 so of times him_{DatCL} have.1sg noticed
 ‘I have told him so many times!’

Example (26a), as said before, has a covert degree operator, whereas (26b-c) have an overt degree operator in italics. (26c) shows that, when the degree spreads not over the whole sentence but over a noun, *bien* is next to an explicit QP.

On the other hand, if we consider an example such as (1c) (repeated here for convenience),

(27) **Spanish**

¡No se lo habré dicho veces esto!
 not him_{DatCL} it_{CL} have+ FUT.1sg said times this
 'I must have told him this so many times!'

we shall be able to notice that, in spite of the syntactic superficial similarity with (26b), and the semantic paraphrase relation with (26a,b), (27) has a covert degree operator (inherently defined with a nonveridical property) which licenses the PI *no*.

This paradigm suggests that the syntactic representation that corresponds to a sentence such as (26b), which has a degree head defined with the feature [+ POS], should look like (28),

(28) [_{DegP} *Si* _{F Pos} [_{CP/QP} C^o/Q^o_i ... [ec_i[*veces*]]]]

whereas (27) is assumed to have the syntactic structure in (29).

(29) [_{DegP} Deg^o _{F Neg} [_{CP/QP} C^o/Q^o_i [_{NegP} *no* _{F Neg} ... [ec_i[*veces*]]]]]]

5.2. *The relevance of the distinction between triggers of polarity and polarity items (Bosque 1996, Giannakidou 1997, Progovac 1994).*

Notice the ungrammaticality, illustrated in (30), of Spanish sentences which contain either *bien* or *si* and a negative marker.

- (30) a. *Bien no se lo puedo haber dicho veces esto.
 quite not him_{DatCL} it_{CL} may.1sg have told times this
 b. *Si no se lo habré dicho veces esto.
 quite not him_{DatCL} it_{CL} have+FUT.1sg told times this

This phenomenon was first described by Hernanz (1995), who postulated that *bien* is an adverb of positive polarity generated in the Spec position of an emphatic Σ P, thus in complementary distribution with *no*. According to the analysis put forward in this paper, I shall claim that *bien* and *si* are degree heads which come from the lexicon with the FF [+ DEG, + Q, + POS], so that at the level of LF these lexical items are interpreted as veridical operators that trigger positive polarity.

By contrast, a sentence such as (27) contains a light negative marker *no*, which at the level of LF must not be interpreted as a trigger of negative polarity but, rather,

as a polarity item with regard to a nonveridical Deg operator, as has been represented in (29).

5.3. *The relevance of F movement at LF (Chomsky 1995)*

Consider the data in (31):

(31) **Spanish**

- a. ¡A cuántas personas no matará este dictador!
to how many persons not kill+FUT.3sg this dictator
'How many people this dictator must be killing!'
- b. ¡Qué de tonterías no dirá este estudiante!
what of nonsense not say+FUT.3sg this student
'This student talks such nonsense!'
- c. * ¡Qué de tonterías en concreto no dirá este estudiante!
what of nonsense specifically not say+FUT.3sg this student

The analysis of degree *wh*-exclamatives requires both *wh* movement into [Spec,DegP] (either covert, in the case of *cuántas*, or overt in the case of *qué de*), and *no* + V movement into Deg^o, in order to account for the non-referential modal meaning of the future tense¹⁹, the expletive reading of the negative marker and the nonspecific reading of the *wh*-expressions (i.e. *wh*-phrases in exclamatives are expressions that reject the specific interpretation, as illustrated in (31c); Espinal 1997).

5.4. *The relevance of F movement and F pied-piping in overt syntax (Watanabe 1997)*

Although raising without pied-piping is more economical in some natural sense, in the minimalist program it is assumed that FF raise along with F because the operation of movement feeds the feature checking operation. According to Chomsky (1995), a set of FF is carried as a unit when only one of them is attracted. This means that in covert raising F movement automatically pied-pipes the rest of FF of the lexical item. It is not movement of the whole category, as understood in the preminimalist framework, since this movement is not required for convergence at PF.

However, F movement and F pied-piping seem also to be relevant in overt syntax. Thus, the cooccurrence of the Dutch quantifier *een* 'a' with a plural noun in exclamative *wh*-sentences can be accounted for by postulating overt movement of the FF [+DEG, -PLU] which define *een*, in this specific configuration. Consider (32).²⁰

19. See Enç (1996)

20. I am most grateful to Jaume Solà for bringing these examples to my attention.

(32) **Dutch**

- a. Wat heeft hij niet een vragen gesteld!
 what has he not a questions raised
 'He raised so many questions!'
- b. Wat heeft hij niet een ellende veroorzaakt!
 what has he not a mess caused
 'He created such a mess!'
- c. Wat een problemen!
 what a problems
 'How many problems!'

It is interesting to notice that in Dutch this is one of the very few cases where *niet + een* is not fused into *geen*, which actually seems to provide an argument in support of Watanabe (1997)'s hypothesis. Accordingly, in this particular structure I would like to suggest that F movement takes place in overt syntax.

The singular determiner *een* «a» can occur with a plural noun exclusively in exclamative *wh*- sentences, which in Modern Dutch are the only possible structures licensing EN. A natural way to account for this could go as follows: [\pm PLU] is an optional and interpretable feature, and because of this it cannot be deleted at LF. [-PLU] of *een* mismatches [+ PLU] of *vragen*, and mismatch of features should cancel out the derivation. Therefore, raising of the [+ DEG] feature of *een* must take with it raising of the [-PLU] feature, so that [- PLU] would be adjoined in a checking configuration with [+ DEG], although it would not be in a checking relation with [+ DEG], since these features do not match.

5.5. *The relevance of both derivational chains (Chomsky 1995) and non-derivational op-CHAIN representations (Brody 1993) in linguistic theory*

Notice that examples such as the one in (32a) make explicit the existence of a derivational chain formed by movement, this movement being motivated by the strength of F_{wh} .

- (33) [wat_i ... [[t_i een] vragen] ...]

Consider now the Spanish data in (34).

(34) **Spanish**

- a. ¡Cuántas veces no se lo habré dicho esto!
 how many times not him_{DatCL} it_{CL} have+FUT.1sg said this
 'I must have told him this so many times!'
- b. ¡No se lo habré dicho veces esto! (= 1c)
 not him_{DatCL} it_{CL} have+ FUT.1sg said times this

'I must have told him this so many times!'

- c. *_iCuánta vez no se lo habré dicho esto!
 how many time not him._{DatCL} it_{CL} have+ FUT.1sg said this
- d. *_iNo se lo habré dicho vez esto!
 not him._{DatCL} it_{CL} have+ FUT.1sg said time this

Examples (34a,b) are important because they both show EN in a degree sentence; but whereas (34a) makes explicit a chain formed by *wh*-movement, (34b) makes explicit a chain configuration without overt movement. (34c,d) show that in degree exclamatives the degree marker cannot combine with singular nouns, but only with mass nouns and plural nouns, which are intensified for their feature of massness or plurality.

The analysis of Spanish degree sentences makes explicit that representational (expletive) operator-CHAINS à la Brody (1993) are needed in the theory of grammar in order to account for the syntactic parallelism between the Dutch examples in (32a,b) and the Spanish example in (34b), since in both structures there is a specifier of either a plural noun or a mass noun that must be identified through chain-connection to an antecedent. The structure corresponding to (34b) can be given the form in (35).

(35) [Op_i ... [[ec_i] veces] ...]

Evidence for this assumption and specifically for the empty category postulated in the [Spec,NP] position stems from the following contrast, which shows that *veces* 'times' requires a quantifier.²¹ Consider the ungrammaticality of (36a) and the negative reading corresponding to (36b), whose syntactic representation does not have a nonveridical degree operator at head initial position.

- (36) a. *Esto no se lo habré dicho veces.
 this not him._{DatCL} it_{CL} have+ FUT.1sg said times
- b. Esto no se lo habré dicho muchas veces.
 this not him._{DatCL} it_{CL} have+ FUT.1sg said many times
 'I may not have said this to him many times.'

The chain representations postulated in (33) and (35) would have at the edge an abstract operator, which has a suprasegmental correlate, and at the end of the chain there would be an operator in [Spec,NP] (which could be either empty, as in the Spanish example in (34b), or filled by a singular Det, as in the Dutch examples (32a,b)). The initial expletive operator would be a scope marker and would determine a specific phonetic interpretation, licensed through intonation. The operator generated in [Spec,NP] would be marked with F_{Deg} and this feature would be attract-

21. I thank M. Lluïsa Hernanz for bringing this point to my attention.

ed to the higher Deg operator at LF, which would determine its appropriate semantic interpretation.

The theoretical implication of this argument is that the grammar of natural languages seem to require non-derivational op-CHAIN representations, generated by principles of grammar and restricted by conditions on well-formedness, as well as derivational chains created by feature checking needs.

To conclude, there are several independent issues which support some of the assumptions made in the analysis of EN and NC put forward in this paper: the postulation of a DegP (distinct from CP/QP), the distinction between triggers of polarity and polarity items, the postulation of F movement and F pied-piping in overt syntax, besides F movement at LF, and, finally, the postulation of nonderivational op-CHAIN representations, besides derivational chains.

References

- Bosque, I. (1980). *Sobre la negación*. Madrid: Cátedra.
- (1994). «La negación y el principio de las categorías vacías». In Demonte, V. (ed.) *Gramática del español*. Publicaciones de la Nueva Revista de Filología Hispánica. México: El Colegio de México, p. 167-199.
- (1996). «La polaridad modal». Universidad Complutense de Madrid, unpublished manuscript.
- Bosque, I.; Masullo, P. (1996). «On verbal quantification in Spanish». Universidad Complutense de Madrid and Universidad Nacional del Comahue, manuscript. Also in Fullana, O.; Roca, F. (eds.). *Studies on the syntax of central Romance languages*. Girona: Universitat de Girona, 1998.
- Brody, M. (1993). «Lexico-logical form. A radically minimalist approach». University College London, unpublished manuscript.
- Chomsky, N. (1995). *The minimalist program*. Cambridge, MA: MIT Press.
- Corver, N. (1997). «Much support as a Last Resort». *Linguistic Inquiry*, 28.1, p. 119-164.
- Elliott, D.E. (1974). «Toward a grammar of exclamations». *Foundations of Language* 11, p. 231-246.
- Enç, M. (1996). «Tense and modality». In Lappin, S. (ed.). *The handbook of contemporary semantic theory*. Oxford: Blackwell, p. 345-358.
- Espinal, M.T. (1992). «Expletive negation and logical absorption». *The Linguistic Review* 9.4, p. 333-358.
- (1997). «Non-negative negation and *wh*-exclamatives». In Forget, D.; Hirschbühler, P.; Martineau, F.; Rivero, M.L. (eds.). *Negation and polarity. Syntax and Semantics*. Amsterdam: John Benjamins, p.75-93.
- (2000). «On the semantic status of n-words in Catalan and Spanish». *Lingua* 110, p. 557-580.
- Giannakidou, A. (1997). *The landscape of polarity items*. Groningen, Ph.D. dissertation.
- Grevisse, M. (1986). *Le bon usage*. Paris: Éditions Duculot.
- Grimshaw, J. (1979). «Complement selection and the lexiconç». *Linguistic Inquiry* 10.2, p. 279-326.
- Haegeman, L. (1995). *The syntax of negation*. Cambridge: Cambridge University Press.

- Haegeman, L.; Zanuttini, R. (1991). «Negative heads and the Neg Criterion». *The Linguistic Review* 8, p. 233-252.
- Hernanz, M.L. (1995). *Bien y la polaridad positiva en español*. Ms. Universitat Autònoma de Barcelona. Also in «Polaridad y modalidad en español: en torno a la gramática de *bien*». Bellaterra: Universitat Autònoma de Barcelona, *Research Report GGT-99-6*.
- Ladusaw, W.A. (1980). «On the notion 'affective' in the analysis of negative-polarity items». *Journal of Linguistic Research* 1.2, p. 1-16.
- (1992). «Expressing negation». University of California Santa Cruz, Syntax Research Center 92-03.
- (1996). «Negation and polarity items». In Lappin, S. (ed.). *The handbook of contemporary semantic theory*. Oxford: Blackwell, p. 321-341.
- Laka, I. (1990). *Negation in syntax: on the nature of functional categories and projections*. MIT, Ph.D. dissertation.
- (1993). «Negative fronting in Romance: movement to (»). In Ashby, W.J. (ed.). *Linguistic perspectives on the Romance languages*. Amsterdam: John Benjamins, p. 315-333.
- Llorens, E. (1929). *La negación en español antiguo con referencia a otros idiomas*. Anejo de la Revista de Filología Española. Madrid.
- Meibauer, J. (1990). «Sentence mood, lexical category filling, and non-propositional *nicht* in German». *Linguistische Berichte* 130, p. 441-463.
- Moliner, M. (1982). *Diccionario de uso del español*. Madrid: Gredos.
- Montague, R. (1969). «On the nature of certain philosophical entities». In Thomason, R.H. (ed.). *Formal philosophy. Selected papers of Richard Montague*. New Haven: Yale University Press, 1974, p. 148-187.
- Postner, P.; Zanuttini, R. (1998). «The force of negation in *wh*-exclamatives and interrogatives». Georgetown University, manuscript.
- Progovac, L. (1994). *Negation and positive polarity: A binding approach*. Cambridge: Cambridge University Press.
- Quer, J. (1993). *The syntactic licensing of negative items*. Universitat Autònoma de Barcelona, MA dissertation.
- (1998). *Mood at the interface*. Ph.D. Thesis. Amsterdam: Holland Academic Graphics.
- Suñer, M. (1995). «Negative elements, island effects and resumptive *no*». *The Linguistic Review* 12, p. 233-273.
- Watanabe, A. (1997). «Absorption as feature checking». Tokyo: Kanda University of International Studies, unpublished manuscript.
- Zanuttini, R. (1991). *Syntactic properties of sentential negation: a comparative study of Romance languages*. University of Pennsylvania, Ph.D. dissertation.
- Zwarts, F. (1995). «Nonveridical contexts». *Linguistic Analysis* 25, p. 286-312.