

## TWO SQUIBS ON MODALITY AND NEGATION

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This paper is concerned with two different linguistic problems raised by Catalan *no-pas* negative clauses, and will examine their representational effects. It is argued that *pas* can occur within the boundaries of a Tense Dependent subordinate clause if, and only if, there is a modal constituent c-commanding the NegP, and the structural requirements for the condition of logical absorption are not satisfied.

The first squib deals with general restrictions on the use of *no-pas* in structures which contain a subordinate clause, while the second squib deals more specifically with restrictions on the use of *no-pas* in expletive contexts. These restrictions are exemplified in (1) and (2).

Compare on the one hand (1a) with (1b), which for some speakers is absolutely ungrammatical, whereas for others it shows some degree of ill-formedness. On the other hand, compare (2a) with (2b), which cannot be used under the expletive interpretation licensed by (2a).

- (1) a. No diu pas si vindrà.  
not says *pas* whether come-3sg-FUT  
'(S)he doesn't say whether (s)he is going to come.' ('not' against what you appear to think, 'not' against what somebody might suppose, 'not' confirming what someone might believe, etc.)
- b. \*/?? No diu si vindrà pas.  
not says whether come-3sg-FUT *pas*

(2) a. Tinc      por que (no) nevi.

have-1sg fear that not snow-3sg-SUBJ-PRES

'I'm afraid that it will/will not snow.'

b. Tinc      por que no nevi                      pas.

have-1sg fear that not snow-3sg-SUBJ-PRES pas.

'I'm afraid that it will not snow.' ('not', for example, against my expectations of going skiing)

The common syntactic property of (1b) and (2b) is that *pas* occurs at S-structure next to the verb of a [+ Tns Dep] subordinate clause, and the hypothesis I shall put forward is that this configuration is possible just in case (i) there is a constituent with modal specifications c-commanding the NegP, and (ii) the structural conditions for logical absorption of negation are not met.

### 1. *No-pas* in Clausal Structures

In (1) I have posed a problem: the existence of restrictions on the distribution of *no-pas* in subordinate clauses. And this problem may be solved as follows. First, I am going to claim that *no-pas* is licensed in subordinate clauses if, and only if, at the level of LF either an affirmative operator or a modal operator c-commands the negative operator, which shows that in order to license *no-pas* a specific structural environment which grammaticalizes modality is required.

Second, since no other kind of operator is able to license *no-pas* at the subordinate clause, I shall argue that modality (represented by modal verbs, the subjunctive mood, and particles of affirmation) is concerned, in its turn, with the grammaticalization of subjectivity (i.e. speaker's subjective attitudes and opinions; cf. Coates (1990)) and, because of this, at the final level of meaning representation access to somebody's expectations, as needed by *no-pas* (cf. Espinal (1993)), is still possible.

My first claim focuses on the important structural effects that modality has on negation. It is my intention to argue that some explicit form of modality is required in order to license Catalan *no-pas* at the subordinate clause, while this is not so in order to license the unmarked negative lexical item *no*. Some relevant data showing that the grammaticalization of modality is compulsory in order to license *no-pas* in a [+Tns Dep] subordinate clause is given in the pair (1b,c). Notice that, although speakers prefer (1a), when *pas* occurs within the boundaries of a subordinate clause a modal verb is responsible of its licensing. Unlike (1b), (1c) is well-formed both under the root sense and the epistemic reading of the modal verb.<sup>1</sup>

- (1) a. No diu pas si vindrà.  
 not says *pas* whether come-3sg-FUT  
 '(S)he doesn't say whether (s)he is going to come.'
- b. \*/?? No diu si vindrà pas.  
 not says whether come-3sg-FUT *pas*
- c. ? No diu si podrà pas venir.  
 not says whether may-3sg-FUT *pas* come  
 '(S)he doesn't say whether {(s)he will be able / it will be possible for her / him} to come.'

Additional data can be observed in (3) and (4).<sup>2</sup> Notice on the one hand the contrast between (3c) and (3d), and on the other the contrast between (3d) and (3e).

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<sup>1</sup> See Picallo (1992) for a syntactic study of modal verbs in Catalan.

<sup>2</sup> Restrictions on the use on *no-pas* in [+Tns Dep] subordinate clauses are widely observed in conditional clauses, finite complement clauses, nonfinite complement clauses, relative noun clauses, restrictive relative clauses, nonfinite adjunct clauses, etc. A couple of examples are given in (i).

- (i) a. CONDITIONAL CLAUSE  
 \* Si ell no diu pas res, li trucarem nosaltres.  
 if he not says *pas* anything 3sgDat phone-1pl-FUT we  
 'If he doesn't say anything, we'll phone him.'

- (3) a. No has telefonat?  
not have-2sg phoned  
'Haven't you called?'
- b. No has pas telefonat?  
not have-2sg *pas* phoned  
'Do you happen to have called?'

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b. RELATIVE NOUN CLAUSES

- \* Els qui no us esforceu pas no aprovareu.  
the who not yourself try-harder-2pl *pas* not pass-2pl-FUT  
'Those who don't try harder will not pass.'

*No-pas* can only occur in the complement (indicative) clause if its Tense specifications are not bound to the upper Tense specifications; this happens when the C of the subordinate clause denotes the speech time.

- (ii) a. Diu que no es pensa pas afaitar.  
says that not himself thinks *pas* shave  
'He says that he doesn't intend to shave himself.'
- b. Has de saber que no estic pas contenta de tu.  
have-2sg to know that not am *pas* happy of you  
'You need to know that I'm not happy with you.'

Exclamative sentences and non-restrictive relative clauses also allow the presence of *no-pas*, which suggests that they should be analysed as Tense independent clauses. See Espinal (1991a) for an analysis of non-restrictive relatives as disjunct constituents.

- (iii) a. Entra! Que no hi ha pas ningú!  
come-in-2sg-IMP that not there has *pas* anybody  
'Come in! There is nobody!'
- b. Si ell no diu pas res! Qui parla és la seva dona.  
if he not says *pas* anything who talks is the his wife  
'He doesn't say a word! The one who is talking is his wife.'
- c. Els terroristes, que no es van pas identificar, sortiren emmascarats per la televisió.  
the terrorists that not themselves PAST-3pl *pas* identify appeared-3pl put-on-mask by the TV  
'The terrorists, who did not identify themselves, appeared under a mask at the TV.'

- c. *Que* no has telefonat?  
 IM\* not have-2sg phoned  
 'Haven't you called?'
- d. \* *Que* no has pas telefonat?  
 IM not have-2sg *pas* phoned
- e. {*Eh, oi*} *que* no has pas telefonat?  
 AffPart\*\* IM not have-2sg *pas* phoned  
 'You haven't called, have you?'

In (4) the contrast between on the one hand (4a,b), which have indicative tenses in the subordinate clause, and on the other hand (4c-f), which have either a subjunctive mood or a modal verb in indicative / subjunctive, should be noticed. (4g) with a modal adverb modifying an indicative verbal form at the subordinate clause is out.

- (4) a. \* No sabia *que tornava* pas.  
 not knew-1sg that returned-3sg *pas*
- b. \* No sabia *que tornaria* pas.  
 not knew-1sg that return-3sg-COND *pas*
- c. No sabia *que tornés* pas.  
 not knew-1sg that return-3sg-SUBJ-PAST *pas*  
 'I didn't know that (s)he might come back.'
- d. ? No sabia *que havia* pas de tornar.  
 not knew-1sg that had-3sg *pas* to return  
 'I didn't know that {(s)he had / it was necessary for her} to come back.'
- e. ? No sabia *que hauria* pas de tornar.  
 not knew-1sg that have-3sg-COND *pas* to return

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\* IM stands for Interrogative Marker.

\*\* AffPart stands for Affirmative Particles.

- f. No sabia      *que hagués*                      *pas de tornar.*  
 not knew-1sg that have-3sg-SUBJ-PAST *pas* to return
- e. \* No sabia      *que probablement* {*tornava,      tornaria*}                      *pas.*  
 not knew-1sg that probably              returned-3sg return-3sg-COND *pas*

What is of interest to us is that all these examples are fully well-formed with the simple negative item *no*. And, therefore, this paradigm of sentences seems to show that the structural conditions that license *no* and *no-pas* in Catalan differ significantly.

First, from a syntactic point of view the inadequacy of the data presented so far must be correlated with the occurrence of a [+ Tns Dep] CP.

Second, the ill-formedness of those examples which have *no* in the main clause and *pas* in indicative contexts of a subordinate clause must be pointed out. These data should be contrasted with further examples which have *pas* either in subjunctive contexts or next to a modal verb in indicative / subjunctive mood (compare (1b) with (1c), and (4a,b) with (4c-f)), commonly evaluated as well-formed by native speakers.

Third, the last example, (4g), shows that modal adverbs and modal verbs are members of different syntactic categories: modal adverbs do not seem to be the head of a Modal Phrase (MP), a syntactic category which (following Laka (1990)) has been postulated in linguistic theory to include modal verbs, and the subjunctive mood (in addition to other morphosyntactic features).

Fourth, notice that *no-pas*, although interpreted as a single negation (as the English glosses illustrate), may appear as a discontinuous item, which suggests that in (1c) and (4c-f) the subordinate CP does not count as a structural barrier between *no* and *pas* (cf. Chomsky (1986b)).

From these observations several syntactic questions can be raised: (i) whether discontinuous lexical items do in fact exist in natural languages, (ii) whether the locality conditions on government such as minimality and barrierhood are relevant in these configurations, and (iii) whether syntactic incorporation (of V into Neg, and of the constituent with modal specifications into the head of CP) is the right process which must be postulated in order to explain the distribution of *pas* in the configuration of (1) and (4).

I am not going to address any of these issues in great detail, since they are the subject of my future research. Instead, I am going to devote this squib to the representation of meaning that corresponds to these examples at the linguistic level where meaning is supposed to be codified. I assume, following the generative paradigm, that the contribution of grammar to meaning is represented at the level of Logical Form (LF), which interfaces the theories of linguistic form (the language system) and interpretation (the Conceptual-Intentional system).

All the data appear to show that at LF *no* and *pas* must be in the same intensional domain, since in spite of the fact that at S-structure we all recognize the existence of a subordinate clause, one single negative domain is to be licensed at the level of LF.<sup>3</sup>

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<sup>3</sup> With regard to this point an important syntactic difference between Catalan on the one hand, and French and Occitan on the other must be pointed out: in Catalan *pas* is not an independent lexical unit, but a morpheme which at the present stage is syntactically and semantically inseparable from *no*. This means that, following Ladusaw (1993), if we consider the head-particle cycle represented in (i) (which is glossed in (ii)), we should conclude that Catalan is at stage (i b), whereas French is at stage (i c).

- (i)
- a. *ne*
  - b. \* (*ne*) ... *pas*
  - c. (*ne*) ... *pas*
  - d. (\* *ne*) ... *pas*
- (ii)
- a. Head expression of negation
  - b. Head supported by strengthener
  - c. Strengthener able to express negation and be concordant
  - d. Former strengthener now independent expressor of negation

Now, if (1c) and (4c-f) license one single sentential negation, whose scope domain corresponds to the main clause, several implications must be drawn as to the form of the representation of their meaning.

The first is that *no* marks the position of the structural head of the negative operator. In other words, the position that *no* has at S-structure corresponds to the structural position of the negative head at LF. Following a hypothesis put forward in Espinal (1991b), my claim is that this negative head can be filled at any level of syntactic representation by a compound negative item, such as *no-pas*. Therefore, in (1c) and (4c-f) only one single sentential negation is licensed, whose scope domain corresponds to the main clause.

Notice, furthermore, that in languages such as Catalan, Italian, and Spanish the Negative head in itself suffices to express sentential negation, which means that quite often there is a non-overt negative operator to satisfy the Neg Criterion postulated by Haegeman and Zanuttini (1991).<sup>4</sup>

A second implication is that the blocking effects of the subordinate CP can be neutralized due to a constituent with modal specifications, either an affirmative particle, a modal verb, or a subjunctive mood (which I define as a [+ Mod] Tense head) that c-commands the negative head.

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A language will have reached the end of the cycle by the time it is no longer possible to double *pas* with *ne / no*.

<sup>4</sup> With respect to this implication I assume the following definitions:

- (i) *Neg operator*: a Neg phrase in a scope position (cf. Haegeman (1992))
- (ii) *Scope position*: a left-peripheral A'-position (either a Spec or an adjoined position) (cf. Haegeman-Zanuttini (1991))
- (iii) *The Neg criterion* (cf. Haegeman (1992), Haegeman-Zanuttini (1991)):
  - a. Each Neg  $X^0$  must be in a Spec-Head relation with a Negative operator
  - b. Each Negative operator must be in a Spec-Head relation with a Neg  $X^0$
- (iv) *The Scope principle*: an operator A has scope over an operator B in case A c-commands a member of the chain containing B (cf. Ernst (1991:753)).



Let us first consider the data in (3).

It should be noticed that in (3e) the modality particles {*eh*, *oi*} c-command the negative head and are the unique constituents responsible for the contrast between (3d) and (3e).

From a lexical point of view, both *eh* and *oi* are particles used to demand agreement, assent or confirmation of the content of the proposition they precede. (Particle *oi* can even be used to express confirmation of the content of the preceding utterance).

From a structural perspective what is important to point out is that these modal particles are in a scope position, in the sense that they are in a left-peripheral A'-position. More specifically, these particles are in complementary distribution with *qu-* expressions.<sup>5</sup>

- (5) a. {*Eh*, *oi*} que no vas            telefonar?  
AffPart IM not PAST-2sg phone  
'You didn't phone, did you?'

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<sup>5</sup> Notice, furthermore, the following contrast:

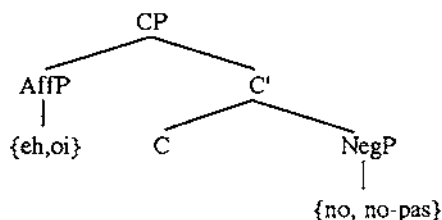
- (i) a. {*Eh*, *oi*} que no vas            pas telefonar?  
AffPart that not PAST-2sg *pas* phone  
'You didn't phone, did you?'
- b. \*!/? *Per què* no vas            pas telefonar?  
why not PAST-2sg *pas* phone  
'Why didn't you phone?'
- c. ? *Per què* no vas            pas poder telefonar?  
why not PAST-2sg *pas* can phone  
'Why couldn't you phone?'

The ill-formedness of (i b) should be attributed to the lack of a modal constituent c-commanding the marked negative head.

- b. *Per què* no vas telefonar?  
 why not PAST-2sg phone  
 'Why didn't you phone?'
- c. \* {*Eh, oi*} *per què* no vas telefonar?  
 AffPart why not PAST-2sg phone

Therefore, modal particles are claimed to occur in a SpecCP position. Accordingly, the truth operator that *eh* and *oi* implement c-commands the negative operator that appears at the complement position of CP.

(6)



As a consequence, the affirmative operator and the negative operator occur, at least in this configuration (and contrary to Laka's (1990)  $\Sigma$  projection), in different structural positions.

With regard to (1c) and (4c-f), I assume a syntactic projection MP, whose head is a modal verb. This head is a logical operator, as the head of NegP, and more specifically a propositional modifier, that is, an entity that converts a sentence into another sentence. Modal items are propositional operators.<sup>6</sup>

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<sup>6</sup> Two types of operators should be distinguished in the grammar of a natural language:

- (i) Variable-binding operators (e.g. quantifiers)
- (ii) Adjunct operators, which modify and c-command some syntactic constituent, but do not bind any trace or variable (e.g. subject-oriented adverbials)

With regard to the subjunctive mood, since modal verbs can occur either in an indicative or a subjunctive form (see (4d-f)), I assume that it is generated as the head of TP, a head that contains specific modal information.

I postulate that, in accordance with their logical instructions, modal verbs (as well as the subjunctive mood) must move upwards: propositional operators must move from some constituent-internal position to a configuration in which operator scope is syntactically displayed. Now the question that remains to be answered is at what time does this movement take place.

My claim is that, if the modal head is moved before the LF-component is reached, it is incorporated into the subordinate head C position.<sup>7</sup> This movement is compulsory in order to allow downgrading of *pas* within the limits of the subordinate structure, otherwise *pas* might not appear at the S-structure after the modal verb of the subordinate clause.<sup>8</sup>

Further support for this syntactic movement of modal verbs from its base position to the C position is provided by the fact that if the subordinate subject is made explicit, it is preferably

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<sup>7</sup> According to a minimalist program for linguistic theory (cf. Chomsky (1992)) a modal head could be said to incorporate into the subordinate head C position only under morphosyntactic checking, which would require that the head C position were marked [+Mod] under certain structural conditions, still to be specified.

<sup>8</sup> Notice that *pas* cannot be placed after the verb in infinitive form:

- (i) a. \* No diu si podrà venir pas.  
not says whether may-3sg-FUT come *pas*  
b. \* No sabia que havia de tornar pas.  
not knew-1sg that had-3sg to return *pas*

The reason why these examples are ungrammatical must be related to the fact that, apart from scopal verbs (such as modals and aspectuals), nothing justifies raising of main verbs to the head of CP.

postverbal, syntactically adjoined to the VP. Notice that some speakers even prefer the following (c) examples with an intonational break before the postverbal subject.

- (7) a. ??No diu si la seva germana podrà pas venir.  
 not says whether the her sister may-3sg-FUT *pas* come  
 '(S)he doesn't say whether {her sister will be able / it will be possible for her sister} to come.'
- b. No diu pas si la seva germana podrà venir.  
 not says *pas* whether the her sister may-3sg-FUT come
- c. No diu si podrà pas venir la seva germana.  
 not says whether may-3sg-FUT *pas* come the her sister
- (8) a. ??No sabia que el seu promès havia pas de tornar.  
 not knew-1sg that the her fiancé had-3sg *pas* to return  
 'I didn't know that {her fiancé had to come back / it was necessary for her fiancé to come back}.'
- b. No sabia pas que el seu promès havia de tornar.  
 not knew-1sg *pas* that the her fiancé had-3sg to return
- c. No sabia que havia pas de tornar el seu promès.  
 not knew-1sg that had-3sg *pas* to return the her fiancé

(7a) and (8a), which show an overt preverbal subject, have a lower degree of grammaticality than the (b) and (c) examples. On the basis of the assumption that *pas* is like an anaphor locally bound to *no* (i.e. *no* and *pas* must occur within the same sentential domain), since they constitute a head-particle structure (cf. Ladusaw (1993)), it should be claimed that the subordinate subject of these sequences cannot be made explicit in preverbal position. The prediction I make is that, if the subordinate subject occurs in preverbal position, the modal verb has not been incorporated into C in the syntax, and therefore *pas* cannot occur within the clausal structure. This situation strongly suggests (i) that Catalan subjects originate within the VP (cf. Bonet (1989)), and from this position they move either to [Spec, AgrP] in affirmative sentences

or to [Spec, NegP] in negatives, and (ii) that the subordinate CP does not count as an inherent barrier.

Let us further assume the notion of blocking category given in (9) (cf. Espinal (1992)), and the definition of barrier in (10) (cf. Chomsky (1986b)).

(9)  $\gamma$  is a *blocking category* for  $\beta$  iff (a) or (b):

- a.  $\gamma$  is neither L-marked nor s-selected and  $\gamma$  dominates  $\beta$
- b. at the level of LF there is a logical operator adjoined to  $\gamma$  or in a Spec position of  $\gamma$

(10)  $\gamma$  is a *barrier* for  $\beta$  iff (a) or (b):

- a.  $\gamma$  immediately dominates  $\delta$ ,  $\delta$  a BC for  $\beta$
- b.  $\gamma$  is a blocking category for  $B$ ,  $\gamma \neq IP$

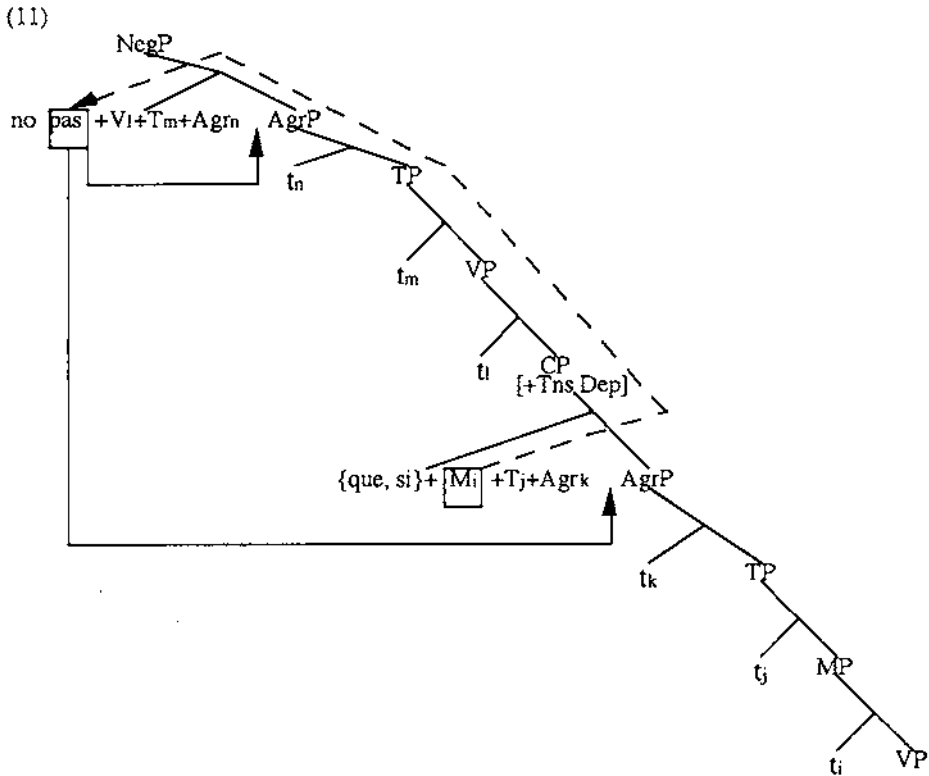
The contrast between (1b) and (1c) can only be accounted for under the assumption that a modal constituent incorporated into C neutralizes CP. In other words, only if M c-commands Neg, by incorporation into C, the required locality between *no* and *pas* is guaranteed. The contrast between (1b-c) cannot be accounted for by reference to the potential barrierhood of an indicative TP (cf. Zanuttini (1991:158)), since both *vindrà* and *podrà* are in an Ind Fut tense. Rather, in structures such as those corresponding to (1b) and (4a,b) the subordinate CP is a blocking category with regard to the compound negative marker *no-pas*, since CP –although L-marked and s-selected by the matrix verb– dominates *pas* but does not dominate *no*.

As already claimed this blocking effect of CP is obviated just in case the head of a constituent with modal specifications (either a M head or a {+ Mod} T head) is incorporated into the head of the subordinate CP.<sup>9</sup> From a syntactic point of view, once this syntactic incorporation has taken place the logical features of the modal operator can percolate from C to CP, and from this

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<sup>9</sup> Similarly, it is standardly assumed for English that modal verbs move from a base position, as head of the VP complement of Infl, to Infl, and to Comp for questions.

position up to the NegP, thus modifying (i.e. c-commanding) the Neg head. It is precisely at this point when *pas*, following lexical requirements peculiar to *no-pas* (cf. Espinal (1991b)) is reordered and placed in a postverbal position, either within the complex Neg<sup>0</sup> constituent or behind the modal. This structure is represented in (11), and illustrated in (12) and (13). Notice, furthermore, that the configuration which best licenses *no-pas* in clausal structures is that according to which a M head is incorporated into a [+Mod] T head, that is, a modal verb in the subjunctive mood, as illustrated in (13d).



- (12) a. No diu pas si vindrà. (= (1a))  
 not says *pas* whether come-3sg-FUT  
 '(S)he doesn't say whether (s)he is going to come.'

- b. ?No diu si podrà pas venir.  
 not says whether may-3sg-FUT *pas* come  
 (= (1c) [C *si* + M<sub>i</sub> + [- Mod] T<sub>j</sub> + Agr<sub>k</sub> ] )  
 '(S)he doesn't say whether {(s)he will be able / it will be possible for her / him}  
 to come.'
- (13) a. No sabia pas que tornés.  
 not knew-1sg *pas* that return-3sg-SUBJ-PAST  
 'I didn't know that (s)he might come back.'
- b. No sabia que tornés pas.  
 not knew-1sg that return-3sg-SUBJ-PAST *pas*  
 (= 4c) [C *que* + V<sub>i</sub> + [+ Mod] T<sub>j</sub> + Agr<sub>k</sub> ] )  
 'I didn't know that (s)he might come back.'
- c. No sabia pas que hagués de tornar.  
 not knew-1sg *pas* that have-3sg-SUBJ-PAST to return  
 'I didn't know that {(s)he had / it was necessary for her} to come back.'
- d. No sabia que hagués pas de tornar.  
 not knew-1sg that have-3sg-SUBJ-PAST *pas* to return  
 (= (4f) [C *que* + M<sub>i</sub> + [+ Mod] T<sub>j</sub> + Agr<sub>k</sub> ] )  
 'I didn't know that {(s)he had / it was necessary for her} to come back.'

The NegP seems to be the first maximal projection that counts above the subordinate CP, since the rest of the projections which appear between the NegP and the subordinate CP, do not count as barriers. In (11) the AgrP, the TP and the VP above the subordinate CP have neither heads, nor specifiers nor complements specified lexically, and they are filled only by traces left by the incorporation operation of these constituents into the Neg head.

In summary, under the assumption that in modern Catalan *no-pas* is a discontinuous lexical item and the definition of the Scope Principle given in Ernst (1991) (see note 4), it should be claimed that licensing this negative marker in clausal structures requires a bearer of modality,

either a modal particle, a modal verb or the subjunctive mood in a scope (i.e. c-commanding) position.

Notice also that if modals were assumed simply to be adjoined to the most immediate sentential domain in the LF-component, this hypothesis would neither allow us to explain the contrast in grammaticality between (1b,c), nor would it account for the fact that *pas* can cross a CP boundary in (1c) but not so obviously in (1b).

So far I have considered the set of structural specifications which seem to be required in order to license *no-pas* in syntactic contexts which contain a Tense Dependent subordinate clause. The next question I shall address is why it is the case that modality has such a significant effect on the process of licensing, that is, on the process of providing a full interpretation for marked negation in subordinate clauses. In other words, what is the relevance of the sort of representation I have postulated by the time the process of utterance interpretation is reached?

It is widely accepted in the linguistic literature on modality that modal forms appear to be the chief lexical exponents of subjectivity. Palmer (1986) and Coates (1990), among others, argue that modality in natural languages is concerned with the subjective characteristics of an utterance, and therefore allows the grammaticalization of the speaker's subjective attitudes and opinions.

The data we are concerned with reveal that access to either the speaker's or the hearer's expectations is legitimate, as determined by *no-pas*, just in case there is some other constituent which attends to the matter of bringing forward the required subjective information; otherwise, *no-pas* is not licensed in subordinate clauses.<sup>10</sup> And the unique constituent which makes this

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<sup>10</sup> Two distinct negative lexical items exist in Catalan, which contribute differently to the Propositional Form corresponding to the negative structure in which they occur. *No-pas* differs from *no* in that it not only contributes to the proposition expressed –exactly as *no* does–, but it also contributes to implicatures, and therefore to the process of enrichment of a linguistically underdetermined language expression, by implying a non-descriptive use of negation. *No-pas* can actually be said to constrain the comprehension process by



access to people's expectations possible is a modal constituent: either a modal verb, a modal particle, or a subjunctive mood.

Modal forms appear to imply a subjective commitment to the proposition expressed. Consequently, whereas from a grammatical point of view they c-command the negative constituent and may contribute to the proposition expressed, from a pragmatic view point they are concerned with the subjective information carried by an utterance.

Modal particles (contrary to Wilson-Sperber's (1993) analysis) seem to encode linguistic information which is necessary to infer the proposition expressed. An example such as (3d) evidences that the absence of a modal particle results in an ill-formed linguistic expression. Accordingly, modal particles seem to contribute to the truth conditions of the utterance which carry them. In addition, they seem to constrain the sort of propositional attitude that the speaker/hearer must hold towards the proposition expressed. From this point of view, they are said to encode procedural information on attitudinal indicators, such as confirmation and assent.

On the other hand, modal verbs and the subjunctive mood encode linguistic information which contributes clearly to explicit content, by encoding not only a grammatical relation with regard to the negative operator, but also higher-level explicatures (i.e. the speaker's opinions made manifest in the English translation of (1c) and (4c-f)). That is, they entail conceptual information which contributes to the speaker's opinions and attitudes towards the hearer for

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instructing the hearer that (s)he has to take the proposition in which *no-pas* appears as a premise, and enrich this proposition in such a way that some cognitive effects might be drawn: either the reinforcement or cancellation of that proposition, or certain inferences derived from what the speaker/hearer considers as a desirable thought (in interrogative contexts), or a prohibition reinforcement or threat (in imperative contexts). And the claim that *no-pas* conveys an interpretive use must be related to the restrictions on the use of *no-pas* in subordinate clauses.

See Espinal (1993) for further details on the interpretation of *no-pas* in Catalan.

what is said in the propositional form; in other words, the logical specifications of these constituents provide information on the speaker's commitment to the proposition expressed.

To conclude, both modal particles on the one hand, and modal verbs and the subjunctive mood on the other, seem to provide the required subjective information for licensing *no-pas* in Catalan.

Finally, I would like to point out that the difference between modal adverbials and modal specifications on verbal heads observed in (4c-g) must be assumed to be determined from the lexicon. Whereas the modal operator corresponding to adverbials expresses objective modality, and contributes solely to the proposition expressed by the utterance, the modal operator corresponding to the subjunctive mood expresses epistemic possibility, and the one corresponding to modal verbs can either express subjective epistemic modality or deontic modality (cf. Lyons (1977)), and encodes logical information which not only contributes to the propositional form, but also to higher-order explicatures, to statements of opinion and attitude. Thus, it can be concluded that only expressors of subjective modality fulfil the semantic requirements of *no-pas*.

In the second squib, I shall deal with a different group of data which shows that unlike *no no-pas* cannot be interpreted expletively when it is the head of a negative subordinate clause.

## **2. *No-pas* in Expletive Contexts**

First, it should be noted that the term expletive negation (EN) refers to a Neg syntactic constituent which appears in certain syntactic environments, but makes no effective contribution to the interpretation of the whole string containing this constituent. Some examples are given in (14), which have both an expletive and a negative reading.

- (14) a. *Tinc por que (no) nevi.* (= (2a))  
 have-1sg fear that not snow-3sg-SUBJ-PRES  
 'I'm afraid that it will/will not snow.'
- b. *Impediu que la policia (no) trobi l'assassí.*  
 stop-2pl-IMP that the police not find-3sg-SUBJ-PRES the-murderer  
 'Stop the police from finding/not finding the murderer.'

In a previous paper (cf. Espinal (1992)) I have approached the question of why negation is interpreted expletively in some syntactic contexts. I have argued that EN is a natural language phenomenon induced by specific lexical items appearing under specific structural conditions. This phenomenon is accounted for if, and only if, at the level to which the Principle of Full Interpretation applies (i.e. at LF) the effects of the negative operator are absorbed, or cancelled, by the logical specifications stipulated in the lexical entries corresponding to the set of lexical items which semantically select and govern a negative head at the complement clause (amongst others: 'before', 'until', 'to fear', and 'to prevent').

Thus, logical absorption is conceived as a licensing condition on LF representations, for this condition explains why certain negative constituents are not licensed as independent negative concepts.

Negation is absorbed in accordance with the definition of EN given in (15) (cf. Espinal (1992)):<sup>11</sup>

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<sup>11</sup> I have been pointed out by the audience of a lecture given at Stanford University on July 17 of 1993 that the term 'entailing' has a sense too specific within formal semantics to be used appropriately in the definition of logical absorption given in (15b). Thus, lexical items such as 'false' and 'wish', although they seem to entail some negation, do not license expletive negation.

- (15) a. *Expletive negation* occurs at LF whenever there is a set of contiguous nodes in a tree T (a lexical category X, a complementizer *que*, and a Neg head), which form a subtree of T, and X, the governor, can absorb the effects of negation due to its logical meaning
- b.  $\alpha$  absorbs  $\beta$ ,  $\alpha$  = a lexical category entailing negation and  $\beta$  = Neg, in the following configuration:
- [ ...  $\alpha$  [ C<sup>0</sup> [ ...  $\beta$  ... ]]]
- iff
- b'. Minimality is respected
- b''. There is no logical operator intervening between  $\alpha$  and  $\beta$  at the level of LF

The question that still remains to be answered is why this operation cannot cancel out the specific logical effects of a marked negative lexical item, such as *no-pas*. Notice that, in contrast with (14a,b), the examples in (16) can only be licensed under a negative reading.

- (16) a. *Tinc* *por que no nevi* *pas.* (= (2b))  
 have-1sg fear that not snow-3sg-SUBJ-PRES *pas*  
 'I'm afraid that it will not snow.'
- b. *Impediu* *que la policia no trobi* *pas l'assassí.*  
 stop-2pl-IMP that the police not find-3sg-SUBJ-PRES *pas* the-murderer  
 'Stop the police from not finding the murderer.'

The situation becomes even more interesting when we consider data that contain a modal verb within the subordinate clause of a lexical item that licenses EN. Some relevant examples are given in (17).

- (17) a. *Temien* *que la seva filla volgués* *estudiar a l'estranger.*  
 feared-3pl that the their daughter want-3sg-SUBJ-PAST study to-the-abroad  
 'They were afraid that their daughter wanted to study abroad.'

- b. *Temien* que la seva filla no volgués estudiar a l'estranger.  
 feared-3sg that the their daughter not want-3sg-SUBJ-PAST study to the-abroad  
 'They were afraid that their daughter wanted/did not want to study abroad.'
- c. *Temien* que la seva filla no volgués pas estudiar a l'estranger.  
 feared-3pl that the her daughter not want-3sg-SUBJ-PAST *pas* study to the abroad  
 'They were afraid that their daughter did not want to study abroad.'

The data in (14), (16) and (17) provide evidence for a NegP in the subordinate clause, and this negative clause is semantically selected by a specific predicate that appears in the main clause (i.e. the Catalan counterpart of 'to be afraid of', 'to stop' and 'to fear'). Besides, the Tense specifications of the subordinate clause are linked to the Tense specifications of the main clause.

It is important to notice that in this syntactic environment the negative item *no-pas* cannot occur in subordinate clauses unless a modal constituent (either the subjunctive mood, or a modal verb such as 'may', 'want' or 'have to') c-commands the negative marker. But notice that in this linguistic context *no-pas* constrains the negative interpretation. That is, the common property shared by the data in (16) and (17) is that when a modal constituent c-commands *no-pas*, only the negative reading is fully licensed.

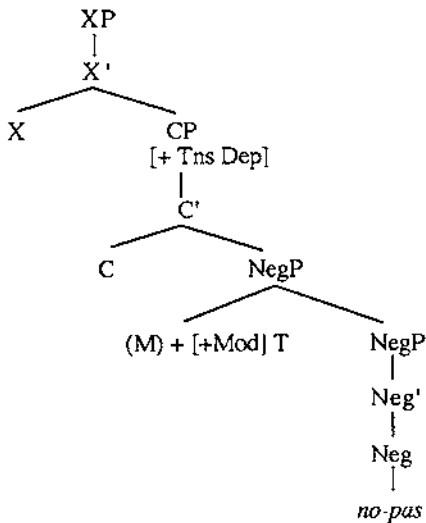
It would appear, therefore, that under specific structural configurations *no-pas* cannot be absorbed by the logical content of the set of lexical items which in Catalan select and govern a negative head at the complement clause.

In the previous squib the logical requirements of modal items were mentioned, mainly the requirement that they must be licensed as sentential operators by the time the level of LF is built. These lexical instructions determine that, if the modal head has not already moved in the syntax proper, it must move –as a *last resort* operation (cf. Chomsky (1992))– in the LF-component, and must adjoin to the upper sentential node (the NegP in expletive contexts), since it must be interpreted as modifying the whole sentence in which it appears.

This means that in (14), (16), and (17) two different constituents (the modal constituent, either a modal verb in the subjunctive mood or any main verb in the subjunctive, and the Neg head) must be adjoined to the subordinate NegP, and depending on the order in which these adjunctions apply, either the expletive or the negative reading is licensed.<sup>12</sup>

In the previous squib it was also mentioned that *no-pas* cannot occur in [+ Tns Dep] clausal structures unless it is c-commanded by a modal operator which carries out higher-level explicatures. The relevant output LF structure has a modal operator between a particular predicate governing the negative adverb, and the negative operator itself, and in this syntactic configuration negation cannot be absorbed, for the required structural contiguity (stipulated in (15)) between the lexical head X and the Neg head is interrupted by an adjoined modal constituent that has lexical and logical features which stop the absorption condition from being applied. This configuration is represented in (18):

(18)



<sup>12</sup> See Espinal (1992) for further details of these adjunction constructions.

In short, this representation would suggest that NegP is a blocking category for government of Neg by X, since at LF it contains a logical operator adjoined to NegP (see (9b)). With this intervening operator, CP becomes a barrier for government of Neg by X by inheritance (see (10a)), and absorption is ruled out.

Besides, *no-pas* has very strict lexical requirements which underdetermine the utterance's interpretation. Accordingly, there are difficulties in accepting expletive *no-pas*, for the negative proposition is already entailed logically by the logical content of the lexical head, and no specific reinforcement of the negative proposition is expected to be drawn in purely expletive contexts.

To conclude, in this paper I have argued for a representational approach to the study of the significance of language.

Specific linguistic problems involving the use of the compound negative lexical item *no-pas* in Catalan can only be appropriately accounted for under a representational semantic theory which distinguishes between: (a) information which is linguistically and conceptually encoded in the lexicon as a contribution to or a constraint on implicatures (e.g. *no-pas* logical specifications), (b) information which is linguistically encoded at the level of LF as a contribution to the proposition expressed (e.g. the c-command structural relation between modal operators and the negative operator, and the configurational constraint which controls the expletive reading), and (c) information which is linguistically encoded at the level of LF as either a contribution to or a constraint on higher-level explicatures (that is, conceptual structures representing some conceptual comment on somebody's subjectivity and propositional attitudes).

More particularly, this study has evidenced the structural effects that modality might have on negation. Modal verbs and the subjunctive mood behave similarly with regard to licensing *no-pas* in clausal structures. In fact, the logical specifications of modal lexical items already determine what their contribution to LF formation is going to be: they are to be licensed as

propositional operators, and this requirement is implemented within grammar itself by movement of the propositional operator from some constituent-internal position to a configuration in which operator scope is syntactically expressed. This upward movement of the syntactic head which contains modal specifications (M and [+ Mod] T) can take place either before reaching the LF-component or at the level which is assumed to represent the syntax-semantics interface.

From squib 1 it can be concluded that, if the modal head moves in the syntax, it must be incorporated into the head of CP. This hypothesis accounts for both the position of *no-pas* in Catalan negative main clauses when *pas* crosses a CP, and for the position of modal verbs in interrogative sentences in English.

From squib 2 it can be concluded that, if the modal head moves in the LF-component, it must be adjoined to the most immediately dominating sentential node. This adjunction structure accounts for the fact that a modal operator, when intervening between a lexical head (that selects and governs a negative marker) and the negative operator itself, stops the condition of logical absorption from being applied.

Furthermore, it should also be concluded that Catalan *no-pas* is licensed within a [+ Tns Dep] subordinate clause if, and only if, at the level of LF either a truth operator or a modal operator c-commands the negative operator, which shows that in order to license *no-pas* a specific structural environment is required.

On the other hand, since no other operator is able to license *no-pas* at the subordinate clause, it should also be concluded that modality (being represented either by modal verbs, the subjunctive mood, or particles of affirmation) is concerned with the grammaticalization of subjectivity (i.e. speaker's subjective attitudes and opinions, hearer's attitudinal effects), and so it satisfies the logical requirements of *no-pas*.



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