

NEGATION IN SYNTAX:
ON THE NATURE OF FUNCTIONAL CATEGORIES AND PROJECTIONS

by

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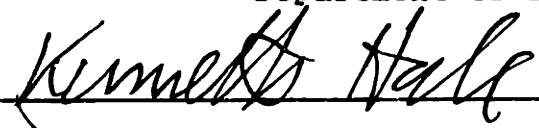
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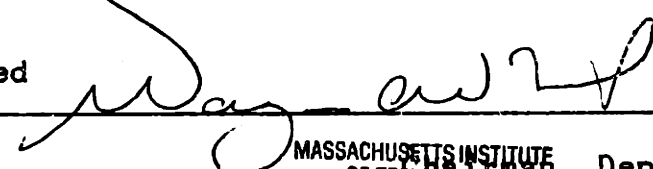
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ABSTRACT.

The central concern of this work is the syntactic nature of negation in Universal Grammar, and its relation to other functional elements in the Syntax.

The study argues that negation is not a syntactic category on its own; rather, it is one of the values of a more abstract syntactic category, named Σ , which includes other sentence operators, such as affirmation and emphasis (Chapter 2). It is also argued that the syntactic feature [negation] surfaces in other syntactic categories besides Σ . In particular, the existence of [N] (negative) Complementizers is defended; this accounts for a range of phenomena in various languages: across-the-clause licensing of Negative Polarity Items in English, the distribution of the -nik complementizer in Basque, and the nature of Dubitative Subjunctive in Romance (Chapter 3).

Chapter 1 argues for the existence of a universal requirement that inflectional heads such as negation (Σ) must be c-commanded by the syntactic head Tense at S-structure. Assuming this requirement, a unified account is provided for apparently unrelated phenomena induced by negation in English (do-support, sections 1.3 and 1.4) and in Basque (movement of the inflected auxiliary, sections 1.1. and 1.2).

Chapter 2 also presents an account of the phenomenon of 'double negation' in Romance, in terms of the category Σ and its projection, ΣP (section 2.6). It is argued that preverbal instances of the elements that induce 'double negation', such as *nadie*, *nada*, *ningún* etc., involve movement of the item in question to the specifier of ΣP , which is headed by a phonologically non-overt negative element. Also, 'yes' and 'no' answers are discussed in relation to the Σ Projection; it is argued that such answers make crucial use of this syntactic category, and parametric differences between the three languages under study (English, Spanish and Basque) are considered in support of the hypothesis (section 2.7).

The structure of Inflection in Spanish is considered in Chapter 3. The nature of Subjunctive and its relation to Negation and Imperative Mood is discussed. A proposal is made concerning the inflectional structure of Spanish, this proposal is shown to generate exhaustively the entire verbal paradigm of this language, and it predicts a number of language-particular properties of Spanish (section 3.5).

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CHAPTER 1:

THE TENSE C-COMMAND CONDITION

1.0. INTRODUCTION

In this chapter, I explore certain syntactic phenomena induced by sentence negation in Basque and English, and I attempt to provide a unified account of them, based on a universal requirement on functional heads. This requirement, which I will refer to as the **Tense C-command Condition**, is stated in (1). It requires that all functional heads in the clause that are propositional operators be c-commanded by the head Tense at S-structure.

(1) TENSE C-COMMAND CONDITION

Tense must c-command at S-structure all propositional operators of the clause.

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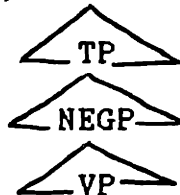
The TCC is not a requirement on sentence negation only, but on the dominance relations holding between Tense and all other functional heads that operate on the clause. In this chapter, however, I will present evidence for the TCC based solely on sentence negation. More specifically, I will argue that apparently unrelated syntactic phenomena surfacing in sentence negation in languages like Basque, English and modern Hebrew are directly induced by the TCC, given the different parametric settings of these languages.

A second point to be argued for will be that there is a parametric choice regarding the placement of Negation at D-structure. I will argue that Negation can be generated TP (=IP)[‡] internally or TP externally in different languages. Ultimately, then, I am claiming that (at least some) functional heads may vary in their selectional properties across languages.

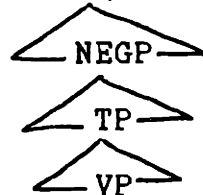
In particular, I claim that whereas in languages like English negation is generated below TP (as in Pollock (1987) and Chomsky (1989)), there are languages like Basque where negation is generated above TP. This is schematized in (2):

[‡] I will identify TP (Tense Phrase) with IP (Inflectional Phrase), following Pollock (1989). Distinctions between IP and TP will be made only when relevant in the discussion.

(2) ENGLISH



BASQUE



Given Phrase structures like (2), Grammars rely solely on UG operations to arrive at the unique solution (1) imposed on them by UG. If this approach is correct, the only place where there is room for language variation is in the inherent properties of functional items, which will differ in their selectional properties in such a way as to generate different functional structures.

The material presented in this chapter, hence, strongly supports the view of parametrization put forward by Chomsky (1989) and references therein: parameters are reduced to the non-substantive part of the lexicon.

Based on these two premises, the Tense C-command Condition and the parametric choice given in (2), negation-induced phenomena in English and Basque are explained rather simply, given parametric differences independent of negation.

I will first present an analysis of Basque sentence negation, where the TCC forces movement of Infl to Neg, thus inducing the 'dislocated' word order characteristic of negative sentences in this language. Evidence from deletion and Negative Polarity Items will be presented, supporting the claim that NegP dominates TP in Basque, unlike in English or French (Pollock (1989)). Next, I will discuss the asymmetry between main and embedded sentence negation in Basque. This asymmetry will be shown to involve movement to the head Comp in embedded sentences.

I will then turn to English and argue that the Tense C-command Condition provides a more satisfactory explanation for *do* support than previous analyses in the literature, particularly those of Pollock (1989) and Chomsky (1989). I will first show how these analyses fail to account for the phenomena of *do* support, and I will then present the alternative analysis in terms of the TCC.

The case of sentence negation in Southern Romance and the distribution of negative morphemes in Modern Hebrew will also be discussed, and their relevance for the TCC hypothesis will be shown. Finally, I will discuss the nature of the TCC as a constraint on syntactic representations.

1.1 . PRELIMINARIES: ON BASQUE GRAMMAR.

Before discussing the data from Basque sentence negation, I will consider some general properties of Basque, with particular reference to those that are particularly relevant for our discussion.

1.1.1. On Maximal Projections.

A. Case Marking.

Basque has an ergative case marking system. Descriptively speaking, this means that subjects of one-argument verbs and objects of two-argument verbs share absolutive case, whereas transitive subjects display ergative case marking. All arguments that are complements of the verb at D-structure surface with absolutive case, whereas those arguments that are subjects already at D-Structure display ergative case marking².

²For a detailed discussion of ergativity, unaccusativity and case marking in Basque, see Levin (1983) Ortiz de Urbina (1989), and Oyharçabal (1990).

Hence, subjects of unaccusative verbs like *etorri* 'arrive' or *erori* 'fall' have absolutive case, like the objects of transitives like *ikusi* 'see' or *jan* 'eat'. The subject of intransitive verbs like *hitz egin* 'speak' or *lo egin* 'sleep' shares ergative case with transitive subjects in Basque.

This Case-marking system is illustrated in (3):

- (3) a. *Ume-a etorri da*
 Kid-the arrived has
 'The kid has arrived'
- b. *Ume-a-k sagarr-a jan du*
 Kid-the-E apple-the eaten has
 'The kid has eaten the apple'
- c. *Ume-a-k hitz egin du*
 Kid-the-E word make has
 'The kid has spoken'

(3a) illustrates the unaccusative verb *etorri* 'arrive', the subject of which has absolutive case; (3b) shows the transitive verb *jan* 'eat', which marks the subject with ergative case (E), and the object with absolutive case.³ Finally (3d) is an example of an intransitive verb, *hitz egin* 'speak', whose subject is again marked with ergative

³ For a recent account of Case in Basque where absolutive is not taken to be a single case but rather two different cases (nominative in (3a) and accusative in (3b)), see Oyharçabal (1990).

case.⁴

It is well known that most languages morphologically marking ergativity do not display syntactic ergativity, in that syntactic processes or properties that make reference to 'subjects' or their structural correlates apply to the same set of arguments as in accusative languages (Cf. Anderson (1976)). Levin (1983) and Ortiz de Urbina (1989) have argued convincingly that Basque is not syntactically ergative. Unlike languages like Warlpiri (Hale (1981), (1983)) where arguments are marked in an ergative pattern but agreement markers follow an accusative system, Basque consistently shows ergative morphology both on overt arguments and the agreement system.

B. Agreement and Word Order.

There are three grammatical cases: Ergative, Dative and Absolutive. They are marked on the arguments by the following morphemes: -k for the ergative, -(r)i for the dative and zero for the absolutive. The empty category *pro* is licensed in all three verbal arguments (Salaburu (1986), Ortiz de Urbina (1989)), plausibly in relation to the fact that Basque Inflection (henceforth Infl) shows agreement

⁴ Uribe-etxebarria (1989) presents a detailed discussion and analysis of intransitive verbs in Basque, deriving them from transitive structures that undergo noun incorporation.

with all of them: ergative, absolutive and dative, as illustrated in (4):⁵

- (4) a. Irune-k Ibon-i etxe-a eman dio
 Irune-E Ibon-D house-the given has(3A-3D-3E)
 'Irune gave the house to Ibon'
- b. pro pro pro eman dio
 given aux(3A-3D-3E)
 's/he gave it to her/him'

It is the agreement morphemes encoded in the auxiliary verb which identify the empty pronominals; thus, a change in the morphemes of the auxiliary will convey a different meaning:

- (5) a. pro pro pro eman diguzu
 give aux(3A-1pl-2E)
 'You gave it to us'
- b. pro pro pro eman dizkidate
 give aux(3plA-1D-3plE)
 'They gave them to me'

Following Uriagereka (1986) and Laka & Uriagereka (1987), I will assume that it is the licensing of *pro* in these positions what makes it possible to generate left or right dislocated arguments, parallel to the way in which Romance languages that license *pro* in the Specifier of IP can right

⁵. The conventions for the glosses are: E=ergative case; D=dative case; Absolutive agreement is only glossed in the auxiliary verb; its marker is empty in the argument. Agreement elements in the auxiliary verb are encoded by a number for the person (1=first person, 2=second person etc...), followed by the case to which it corresponds.

or left dislocate the subject. I will assume that the 'free word order' displayed by Basque is in fact a consequence of these multiple dislocations. Thus, consider the following sentences (6), and compare them to those in (1):

- (6) a. [_{IP} pro_i prp pro_k eman dio] Irunek_i Iboni_j etxea_k
- b. [_{IP} pro_i prp pro_k eman dio] etxea_k Iboni_j Irunek_i
- c. etxea_k Iboni_j [_{IP} Irunek pro_j pro_k eman dio]
- d. [_{IP} pro_i Iboni prp eman dio] etxea_k Irunek_i

The examples in (6) show only some of the possible combinations. In fact, all arguments can be combined freely among themselves, as well as with pro-dropped arguments, multiplying the number of possible sentences. The order variations are not semantically identical; for instance, the preverbal argument can be interpreted as focus under the right intonation pattern, and the right dislocated constituents are interpreted as topics (Altube (1929), Mitxelena (1981), Ortiz de Urbina (1989))⁶.

Given the freedom displayed by maximal projections in Basque, arguments for clause structure and dominance relations cannot be straightforwardly based on the surface

⁶. Subject inversion in Romance isn't semantically inert either. See Contreras (1976) for Spanish, Calabrese (1985) for Italian, Raposo (1987) for Portuguese, and Bonet (1989) for Catalan.

order of the verbal arguments. Rather, the relevant evidence must be drawn from processes or phenomena that exhibit ordering constraints.

1.1.2. On heads: Verb, Aspect, Inflection.

Contrasting sharply with the freedom of order of verbal arguments, the verb and Inflection have very strict ordering constraints in Basque. In declarative sentences, the inflected auxiliary must follow the lexical verb:

(7) a. Etxea erori da
house fallen has
'The house fell down'

b. *Etxea da erori
house has fallen
('The house fell down')

The first example, (7a), is a well formed declarative sentence, where the lexical verb precedes the inflected auxiliary. (7b), however, is not a licit order in a declarative sentence; a sequence like the one in (7b) is only acceptable in emphatic sentences (see chapter 2, sections 2.0 and 2.3 for an account of this emphatic construction).

On top of this precedence requirement, there is also a strict adjacency requirement: no constituent can intervene between the verb and the inflected auxiliary,⁷ as illustrated in (8):

- (8) a. Etxea erori da
 house-the fall-down has
 'The house fell down'
- b. *erori etxea da
 fallen house-the has
 ('The house fell down')

Considering these data, it could be argued that verb raising to Infl takes place at S-structure (as in Emonds (1976)), thus yielding a single X⁰ constituent.

⁷. The only elements that can intervene are certain modal particles, which appear cliticized onto Infl:

- (i) Ibonek hori esan omen zuen
 Ibon that said allegedly had
 'Ibon had allegedly said that'
- (ii) Ibonek hori esan ohi zuen
 Ibon that said use had
 'Ibon used to say that'

Hualde & Ortiz de Urbina (1987), argue that these particles are generated in Infl itself.

I will not take this position for reasons that will become more clear when negation facts are discussed below. Instead, I will argue that V does not raise to Infl. Under this view, then, the reason why no constituent may intervene between V and Infl has to do with the impossibility of adjunction to VP (Mahajan (1990)).

1.1.2.1 On Verb-raising.

Empirical evidence for the claim that there is no Verb raising to Infl in cases like (7a) and (8a) is found in a small set of verbs traditionally called **synthetic**, for which the description given so far does not hold completely.

Whereas most verbs in Basque consist of a lexical verb marked for aspect and an auxiliary that carries the inflectional morphology, as in (7a) and (8a), synthetic verbs are inflected as a single unit, where both the lexical verb and the inflectional morphology merge together.

Thus, compare the verbal forms in (9): (9a) is a non-synthetic form, like the ones we have seen in previous examples; (9b) is a synthetic form of the same verb *ekar* 'to

bring^a.

- (9) a. ekarr-i na-u-zu
bring-perf me-have-you

'You have brought me'

- b. na-kar-zu
me-bring-you

'You bring me'

The morphological difference between these two types of verbal forms cannot be left to a late Phonetic Forms readjustment, because certain syntactic phenomena (like negation, see section 2. in this chapter, or emphatics as shown in chapter 2 of this dissertation) separate the verb and the inflection in (9a), but never in (9b). Hence, the difference illustrate din (9) is syntactic in nature, because syntactic phenomena are sensitive to it.

^a In the hystory of the language, the number of synthetic verbs and the usage of the synthetic forms has been declining significantly in favor of periphrastic forms. Thus, from approximately 60 verbs that were inflected synthetically in the XVI century (Lafon (1943)), the grammar of Euskaltzaindia (1987) lists only 24. There does not seem to be any semantic or syntactic property that determines what verbs belong in the synthetic class; rather, this looks like a lexical idiosyncrasy. For the benefit of the interested reader, the verbs nowadays subject to synthetic inflection are the following: egon stay, etorri come, ibili walk, joan go, atxeki hold, erlon drip, etzan lie, jarraiki follow, eduki have, ekarri bring, erabili use, eraman bring, eroan take, jakin know, entzun hear, eritzi to seem to x, erran say, ezagutu meet, ihardun engage, ikusi see, iraun last, irudi look like.

1.1.2.2 The Aspect Projection.

The contrast between synthetic (9b) versus non-synthetic (9a) verbal forms is very simply accounted for if we assume that Verb raising to Infl has taken place at S-structure in (9b), but not in (9a). Hence, the different morphological shape of synthetic verbs as opposed to non-synthetic ones is the result of raising versus non-raising of the Verb to Infl.

The crucial factor determining when a verb of the synthetic class raises to Infl is the aspectual morphology. A verb of the synthetic class will display a synthetic form only when aspect is non-perfective and non-habitual. Perfective and habitual forms show an overt aspect marker attached to the lexical verb (9a); synthetic forms have a punctual aspect meaning, but no overt aspect marker (9b). Thus, the generalization is that an overt aspect marker prevents raising of the verb to Infl. If no overt aspect marker is present, the verb will raise to Infl⁷.

⁷. In the case of modals, we find non-incorporated forms that do not display any overt aspect marker:

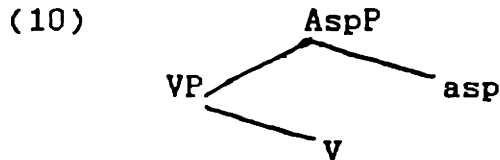
- (i) *ekar na-za -ke -zu*
bring me-root-mod-you
'you can bring me'

There are also incorporated forms, (although they are quite literary and nearly archaic):

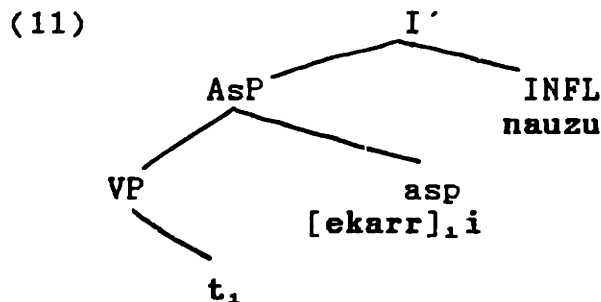
- (ii) *na-KAR -ke -zu*
me-bring-mod-you
'You can bring me'

Presumably, there are two ways to construct modals in modern Basque: one of them, the oldest one, nearly gone from spoken language, is the one illustrated in (ii), where the verbal

These facts are accounted for under the hypothesis that Basque has an Aspect Phrase, headed by the aspectual morpheme itself:



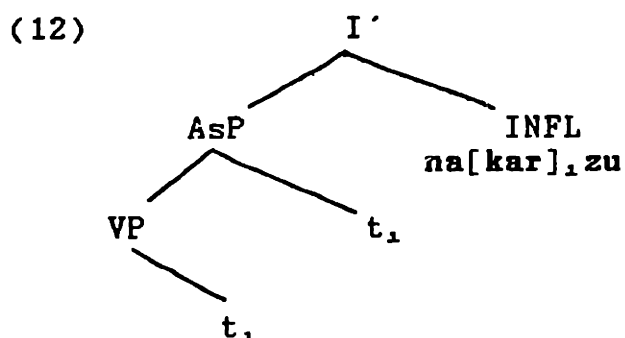
In non-synthetic forms, the verb raises to aspect and the morphological unit [verb-aspect] is created at S-structure; no further raising to Infl takes place. This accounts for forms like (9a) where the lexical verb and aspect are distinct from the inflected auxiliary:



root raises to Infl; the other one, more active in modern Basque, has an empty aspect marker preventing the verb from raising. This hypothesis is supported by western dialects of Basque, where modals do display an overt perfective aspectual marker on the verb:

- (iii) ekarr-i n -ei -ke -zu
 bring-perf me-root-mod-you
 'you can bring me'

Let us assume that Basque lexical verbs are bound morphemes that need to attach to a base by S-structure¹⁰. In a case like (11), aspect is providing such a base. However, if the aspect head is empty, as in (12), the verb still lacks a morphological base after raising to it. Thus, the verb raises further to Infl, generating a single inflected unit in the overt syntax:



Whenever there is a process involving the inflected auxiliary but not the lexical verb, a synthetic form will show the same pattern as the auxiliary. This is expected under the analysis given above, since any syntactic process involving the head Infl will affect equally inflected auxiliaries and synthetic forms. In what follows, then, it should be kept in mind that when I refer to the inflected auxiliary, synthetic verbs are also included.

¹⁰. Following the morphological filter in Lasnik (1981): 'A morphologically realized affix must be realized as a syntactic dependent at Surface structure.' See also Chomsky (1989), where do support in interrogatives is explained by the requirement that the affix Q in Comp be 'completed' in overt syntax by X⁰ raising.

This aspectual projection is of course not particular to Basque; several independent works have claimed the existence of an Aspect Phrase, based on different kinds of evidence from a wide variety of languages. See, for instance Manfredi (1988), Cheng (1989) for Chinese, Demirdache (1989) for Egyptian Arabic, Iatridou (1989) for English and French, Ihionu (1989) for Igbo and Hendrick (1990) for Irish and Breton. See also chapter 3 in this dissertation for an AspP in Spanish, which accounts for the auxiliary-participle forms as opposed to the inflected forms lacking auxiliary verbs.

1.2.BASQUE SENTENCE NEGATION.

1.2.1. The Phenomenon.

The occurrence of the sentence negation *ez* 'not' induces radical changes in the surface order of the sentence in Basque. First, the requirement that the verb precede the inflected auxiliary (7a) is reversed. In negative sentences, the inflected auxiliary must precede the lexical verb, as shown in (13):

- (13) a. *etxea erori ez da
 house-the fallen no has
 ('The house didn't fall down')
- b. etxea ez da erori
 house-the no has fallen
 'The house didn't fall down'

Furthermore, the adjacency requirement, by which no constituent could intervene between V and Infl does no longer hold in negative sentences. The examples in (14a) illustrates this point: the subject *etxea* is intervening between the auxiliary and the verb.

- (14) ez da etxea erori
 no has house-the fallen
 'The house didn't fall'

In fact, any kind and number of constituents can intervene between the inflected auxiliary and the verb when the sentence is negative, as illustrated in (15), where the subject *Irunek*, the dative argument *Iboni* and the direct object *etxea* all three appear in between the auxiliary and the verb:

- (15) ez dio Irunek Iboni etxea eman
 no has Irune Ibon-to house-the given
 'Irune hasn't given the house to Ibon'

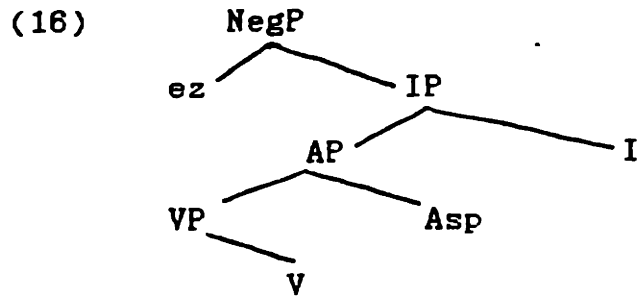
The pattern that emerges in negative clauses is thus the exact opposite of the pattern followed by declarative clauses. In declarative clauses the verb must precede the auxiliary; in negative clauses the auxiliary must precede the verb. In declarative clauses the verb and the auxiliary must be strictly adjacent; in negative clauses there is no adjacency requirement at all, and any number of constituents can occur in between the auxiliary and the verb.

1.2.2. The Analysis.

Following recent work by Pollock (1989) on negation in English and French, I will assume that *ez* 'not' in Basque is a head projecting a Negative Phrase (henceforth NegP).

Unlike the unmarked case in this language, though, Neg is an initial head, instead of final, and unlike French and English, where NegP is the complement of I, Neg takes IP as a complement in Basque. That is to say, French and English have IF internal negation, whereas Basque negation is external to IP. We will later see that this different placement of negation has certain empirical consequences.

A negative sentence in Basque is generated in D-structure as in (16):



In this configuration, Negation and Infl sit at the two opposite edges of the Phrase Marker; however, as we have seen in previous examples, negation occurs attached to the left of the auxiliary. Hence, Negation and Infl must eventually merge together, at some level of representation.

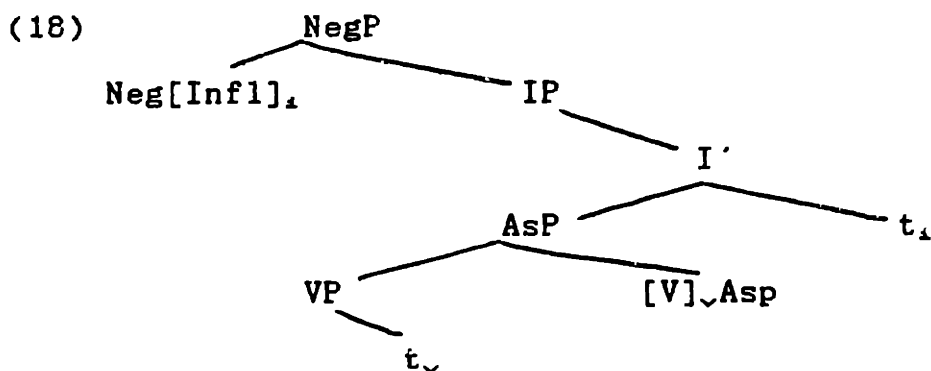
I claim that the merging of Negation and Infl results from raising of Infl to Neg. This movement satisfies the Head Movement Constraint (Travis (1984)):

(17) Head Movement Constraint (HMC)

An X^0 may only move into the Y^0 which properly governs it.

In the case under consideration, Infl is moving to the head immediately dominating it; in this configuration, the trace (t) left behind is governed by its antecedent (Baker (1988)). In fact, it is a standard instance of head-to-head movement.

Let us assume, hence, that the merging of negation and the inflected auxiliary takes place in the mapping from D-structure to S-structure by raising of Infl to the Neg head. This movement results in the S-structure representation illustrated in (18)¹¹



It is this head movement that causes the dislocated pattern of negative sentences illustrated in (13a) and (14), repeated here as (19a, b):

¹¹ If we were to claim that Neg lowers onto Infl, the trace left at S-structure would satisfy the ECP at LF provided the head [Infl[Neg]] raises at LF, parallel to the way Tense raises in English after S-structure affix-lowering onto the verb (Chomsky 1989). Under this hypothesis, however, a sentence where the lexical verb precedes [Neg-Infl] should be grammatical; as illustrated in (9a), however, this is not the case. In order to rule out (9a) we would have to postulate that the lowering of negation forces a further movement of the verb somewhere to the right of Infl. This hypothesis is problematic in that it is difficult to imagine why the lowering of Negation would force the verb to move rightwards obligatorily. Moreover, the differences in deletion and Negative Polarity Item licensing in sections 1.2.3. and 1.2.4 below would find no explanation.

(19) a. etxea ez da erori
 house-the no has fallen

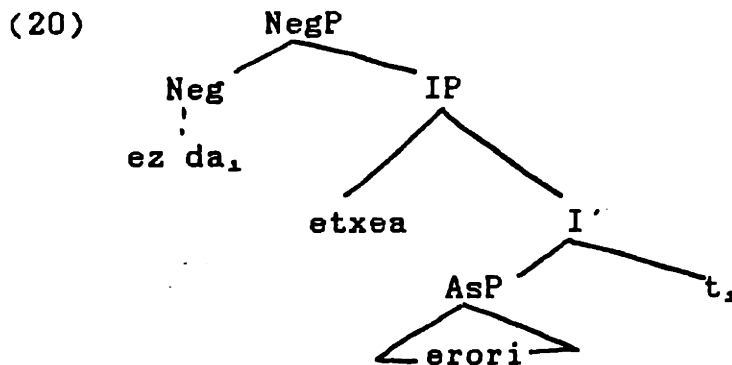
'The house hasn't fallen down'

b. ez da etxea erori
 no has house-the fallen

'The house hasn't fallen down'

We can now account for this pattern: (19a, b) are both instances of adjunction of Infl to Neg, the only difference between the two sentences being the fact that the former has a left dislocated argument (Cf. section 1.1.).

The S-structure representation of (19b) is given in (20):



As discussed above, movement of Infl to Neg does not violate any principle of the Grammar, and it gives the desired results in terms of the data to be accounted for. It therefore appears to be the right analysis of the

phenomena ¹² Note though that we haven't established yet whether this movement takes place at S-structure, as opposed to, say, Phonetic Form; and, so far, no explanation has been provided as to what in the Grammar induces a movement like this. The two main claims made in this analysis are:

- a) Neg is generated above IP in Basque
- b) Infl is forced to move to Neg by S-structure.

In the following sections, I will provide further evidence in favor of these two claims. First, I will argue for (a), based on comparative evidence from Deletion (section 1.2.3.) and Negative Polarity Item licensing (section 1.2.4.), both in English and Basque. Secondly, in section 1.2.5. I will argue that (b) is a direct result of the Tense C-command Condition, a universal requirement.

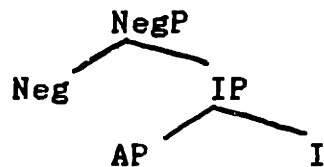
1.2.3. Evidence from Deletion.

The first piece of independent evidence supporting the claim that the relative position of the Negative Phrase with respect to Tense is different in Basque and English comes

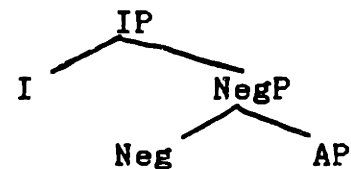
¹². Although it is orthographically separated from the inflected verb, the negative element is a clitic on the auxiliary, and it induces a series of phonological changes in it (Cf. Hualde (1988) and references therein).

from deletion. The structure of Basque negative clauses proposed here is repeated in (21a), whereas (21b) illustrates the structure of an English negative clause (Pollock (1989), Chomsky (1989)):

(21) a. Basque



b. English



According to (21), it should be possible to delete IP in Basque, leaving NegP intact, but the same syntactic operation should be impossible in English, because NegP is 'nested' in between IP (=TP) and AP¹³.

The prediction, therefore, is that in a case of conjunction-induced deletion, where one conjunct is declarative and the other one is negative, different results should obtain in Basque and English: in Basque, it should be possible to

¹³. AP here is used as a cover term for the projection under IP/TP. Under the analysis of Basque presented here, AP stands for Aspect Phrase. However, under Pollock (1989) AP in English stands for Agreement Phrase, and under Chomsky (1989) it stands for Object Agreement Phrase. What the name or nature of that projection is will not affect, I believe, the conclusion of this argument. It has been argued that English AP is actually an Aspect Phrase (Iatridou (1988)). For evidence that the AP in Basque could not be any kind of Agreement Phrase, see Laka (1988) and Cheng & Demirdash (1990).

delete the IP and leave only the NegP, which would not be recoverable; in English, though, this strategy would not be available, because NegP is dominated by IP, and thus IP could not be deleted without deleting with it the non-recoverable NegP. This prediction is borne out.

A conjunction like the one just described has the following behaviour in English: it is not possible to leave undeleted only those elements that are not recoverable (22):

(22) *Mary bought a book and Peter not

Rather, it is necessary to leave undeleted the supporting 'do' as well, as in (23a):

- (23) a. Mary bought a book and Peter didn't
 b. Mary has bought a book and Peter hasn't

Similarly, auxiliary verbs (which do raise to Infl and thus do not trigger 'do support' (Emonds (1976)) cannot be deleted, as shown in (23b). The paradigm in (23) therefore illustrates the fact that IP cannot be deleted when sentence negation is not recoverable.

Note that this phenomenon does not follow from some general condition that disallows adverbs from occurring by themselves

in conjunction structures, nor from some prohibition against deletion of Tense. Thus, it is perfectly possible to have sentences like (24):

(24) Mary bought a book, and Peter too.

Where Inflection has been deleted ¹⁴. Now, if we turn to Basque, we find that the exact correlate of (22) is perfectly grammatical, as shown in (25):

(25) Marik liburua erosi du eta Peruk ez
Mari book-the bought has and Peter no

'Mary has bought the book and Peter hasn't'

The sentence in (25) is not a case of constituent negation on the subject. That is, it does not mean "Mary bought the book, not Peter". Constituent negation of the subject would place the negative morpheme preceding the subject, not following it ¹⁵.

¹⁴. It is also possible to have:

(i) Mary bought a book and Peter did too
Presumably, the adverb in (i) is modifying the proposition, but in the example in the text it only modifies the subject argument. As far as the point made in the text is concerned, it is enough to show that there is no prohibition against deleting Tense in English.

¹⁵. The sentence would look like:

(i) MARIK erosi du liburua, ez PERUK
where both subjects are focalized. Constituent negation in Basque precedes the constituent it has scope over.

The explanation of why English and Basque behave differently with respect to IP deletion in these cases is straightforward under the proposal presented here: in English, deletion of IP could not take place without deletion of NegP as well, under the assumption that deletion cannot affect discontinuous chunks of the Phrase Marker. However, nothing prevents deletion of IP in Basque in these cases, because NegP is not dominated by IP, and thus it can be left intact after deleting the entire IP.

Note finally that it cannot be argued that the English example in (22) is parallel to the Basque case in (25). That is, it cannot be the case that the negative not in (22) is the head of a NegP generated above TP. If this were the case, the not in (22) should behave like a sentence negation, not like a constituent negation on the subject. However, (22) is ungrammatical if the object a book is focalized (or alternatively, it would mean that Mary did not buy a book but she bought Peter instead). In the Basque example in (25), on the other hand, the object *liburua* can in fact be focalized and the sentence is perfectly grammatical, meaning 'Mary bought A BOOK, Peter didn't'. This contrast follows naturally from the fact that not is a constituent negation attached to the subject, whereas (25) is truly a case of sentence negation, where the negative element heads a NegP above TP.

1.2.4. Negative Polarity Item Licensing.

The second piece of evidence supporting the claim that NegP dominates IP in Basque comes from Negative Polarity Item (NPI) licensing by negation. NPI licensing is an extensively studied topic, and I do not intend to consider it in its whole here. Rather, I will be concerned with NPI licensing by negation; to be more specific, the cases to be discussed are those in which, as a result of a 'nearby' sentence negation, the NPI is interpreted as *no[x]*¹⁴.

It is a well known fact that English displays a subject-object asymmetry with respect to NPI licensing, in that sentence negation does not license subject NPIs, but it licenses object NPIs:

- (27) a. *Anybody didn't come
 b. Mary didn't see anything

These facts are accounted for by assuming that negation licenses NPIs under c-command at S-structure. Early works on the topic took essentially this position. Thus, Klima (1964)

¹⁴. That is, cases like 'anybody could do that' or 'has anybody seen Mary?' where the NPI is not interpreted as *no[x]* are not relevant to this discussion.

proposed a suppletion rule deriving NPIs from underlying positive counterparts, which applied to expressions preceded and commanded by an overt negation¹⁷. In a configuration like the one proposed here for Basque (21a), negation c-commands all arguments in IP. This correctly predicts that Basque will allow NPIs in subject position, as illustrated in (27):

- (27) a. Ez dio inork Iboni etxea eman
 no has anybody Ibon-to house-the given
 'Nobody has given the house to Ibon'
 (Lit: anybody hasn't given the house to Ibon)
- b. Ez da inor etorri
 no has anybody come
 'Nobody came'
 (Lit: anybody didn't come)

The examples in (27a) and (27b) show ergative and absolutive subject NPIs respectively. In both cases negation licenses the Polarity Item; hence, the licensing has nothing

¹⁷. Klima's rule applied if the item was 'in construction with' sentence negation. A constituent is 'in construction with' another constituent if the former is dominated by the first branching node that dominates the latter. The concept is thus the converse of the c-command notion.

to do with the position of the arguments at D-structure¹⁰

The example in (28) shows that these lexical items are indeed Negative Polarity Items: in this example *inor* is not in the domain of a licenser, and thus the sentence is ungrammatical:

- (28) **inor etorri da*
anybody come has

That there is no adjacency requirement in the licensing is shown by the example in (29), where the ergative subject intervenes between negation and the NPI:

- (29) *Ez dio, [I_{ERG} Ibonek inori etxea eman t_i]*
no has Ibon anybody-to house-the given

'Ibon hasn't given the house to anybody'

¹⁰. In this respect, NPI licensing differs from partitive case assignment. Partitive Case resembles NPIs in that it requires a licenser:

- (i) *ez du etxerik erosi* (ii) **etxerik erosi du*
no has house-part bought house-part bought has
'she hasn't bought any house' (*she has bought any house)
(iii) *etxerik erosi du?* (iv) *etxerik erosiko balu*
house-part bought has house-part bought if-would
'Has she bought any house?' 'If she bought any house'

However, partitive differs from NPI licensing in that only D-structure objects can be assigned this case (Levin (1983)):

- (v) *ez da umerik etorri* (vi) **ez du umerik hori egin*
no has kid-part arrived no has kid-part this done
'No kid has arrived' ('No kid has done this')

This Case Theoretic restriction prevents partitive NPIs from appearing in place of ergative or dative arguments, thus make them unsuitable to determine purely the scope of Neg.

There are two cases of negation in English that have the same effects that Basque sentence negation does, because they also c-command the whole IP at S-Structure.

The first case is the no way colloquial negation used in some registers and varieties of English¹⁷. This kind of negation does indeed license subject NPIs in English, as (30) illustrates:

(30) No way anybody is gonna tell me what to do

The negative adverb no way is in a presentential position, either adjoined to IP or at some higher position. For the purposes of this argument it is enough that it c-commands IP at S-structure, which I take to be uncontroversial, given that it precedes the subject of the sentence.

The second case is found in the phenomenon that Klima (1964) called "Neg-preposing": a negative constituent is fronted to sentence initial position, triggering aux-inversion. In cases of "Neg-preposing" also, subject NPIs are licensed in English, just like in Basque. The first sentence of Gould's Wonderful Life illustrates this fact:

¹⁷. Thanks D. Pesetsky for bringing these facts to my attention.

(31) Not since the Lord himself showed his stuff to
Ezekiel in the valley of dry bones had anyone
brought such grace to the reconstruction of animals
from disarticulated skeletons.

Negative Polarity Item licensing data, then, provide further empirical support for the analysis proposed: Negation is generated above IP in Basque. Moreover, it does not lower to Infl at S-structure; instead, it stays in a position where it c-commands the external argument of IP.

1.2.5. The Tense C-command Condition.

The only main point in the analysis of Basque negation presented here that does not have a principled explanation yet is why it is that Infl must raise to neg by S-structure. Notice that nothing in our Theory of Grammar would go wrong if negation and Infl stayed separate also at S-Structure, as they are at D-dtructure. The question, hence, is what rules out an S-Structure like (32), where Neg and Infl stay separate:

(32) *~~ez~~ [~~IF~~ Ibon etorri da]]

('Ibon hasn't arrived')

My claim will be that this S-structure representation does in fact violate a universal constraint: the Tense C-command Condition, presented at the beginning of this chapter.

Recent work on the nature of Inflection (Pollock (1989), Mahajan (1988), Ritter (1988), Laka (1988b) among many others) indicates that what has standardly been assumed to be a unified syntactic category Infl is structurally more complex. In particular, the works mentioned follow the idea in Pollock (1989) that Tense heads its own syntactic projection.

In his analysis of English and French negation, Pollock (1989) suggests in a footnote a universal requirement stating that negation must be c-commanded by Infl at S-structure. I will take up this suggestion and make it more general: it is a broader constraint on the syntactic relations that must hold within the inflectional complex, which is constituted of as many projections as inflectional elements there are.

Higginbotham (1985) argues that verbs include in their

grid an event argument (e) that must be saturated by the Infl head in the syntax. If the elements previously grouped under the category Infl do indeed have a more articulated structure than it has been assumed, one question that arises concerns the saturation of the (e) position in the syntax. Since the label "Infl" may refer to more than one syntactic projection, the mechanism by which (e) is saturated must be reviewed. There are two possibilities: On the one hand, if only one of the inflectional heads is responsible for the saturation of (e), it must be determined which one it is. If the saturation is done by means of percolation of the (e) position up to last inflectional projection (similarly to the way in which subject θ -roles percolate outside VP), it is necessary to spell out the mechanisms of this percolation.

The position I want to take is that the role of Infl as the saturator of (e) in Higginbotham (1985) and (1987) is done by Tense. The (e) argument percolates up in the inflectional structure up to TP, where it is saturated.

The Tense C-command Condition can thus be thought of as the way to ensure that all inflectional elements that operate on a given clause are dominated by the element that saturates the event position of that clause. Thus the Tense C-command Condition holds of all functional heads that operate on the

proposition, and that negation is just a particular case of this more general requirement²⁰.

Stating the condition in terms of Tense gives us a way of capturing the fact that this element tends to be the highest functional head among the inflectional projections, as well as for why modals, sentence negation and agreement markers occur generally as structurally lower inflectional heads or as particles adjoined to Infl. Under Pollock's Analysis of English and French negation, Tense is the highest inflectional projection; the same is true in Mahajan's (1988) work on Hindi agreement and in Ritter's (1988) work on Hebrew. Chomsky (1989) claims (following Belletti (1988)) that subject Agr is projected higher than Tense. Nevertheless, he also assumes that Tense raises to it by S-structure. Basque inflectional morphology also provides strong evidence for Tense C-commanding all other inflectional heads (Laka 1988)²¹.

²⁰. Evidence that the Tense C-command condition holds of heads that are not negation will be presented in the second chapter of this dissertation.

²¹. There is one functional head that doesn't appear to obey the TCC: the complementizer. I assume that this head does not modify the event in Infl, but establishes a relation between that clause and some other clause.

Let us now recall our analysis of Basque sentence negation under a condition like the TCC. In a configuration like the one proposed for Basque (13), the c-command relation demanded by the TCC does not hold at D-structure, since the Neg is c-commanding IP. The only way in which Tns can c-command Neg at S-structure is by adjoining to it, as in (14).

1.2.6. Negation in Embedded sentences.

The generalizations about Basque sentence negation presented in the previous sections hold of matrix negative sentences, but not of embedded ones. Thus, for example, relative clauses show the opposite pattern of (10), as illustrated in the following examples:

- (33) a. [erori ez den] etxea
 fallen no has-that house-the
 'The house that didn't fall-down'
- b. *[ez den erori] etxea
 no has-that fallen house-the
 ('The house that didn't fall')

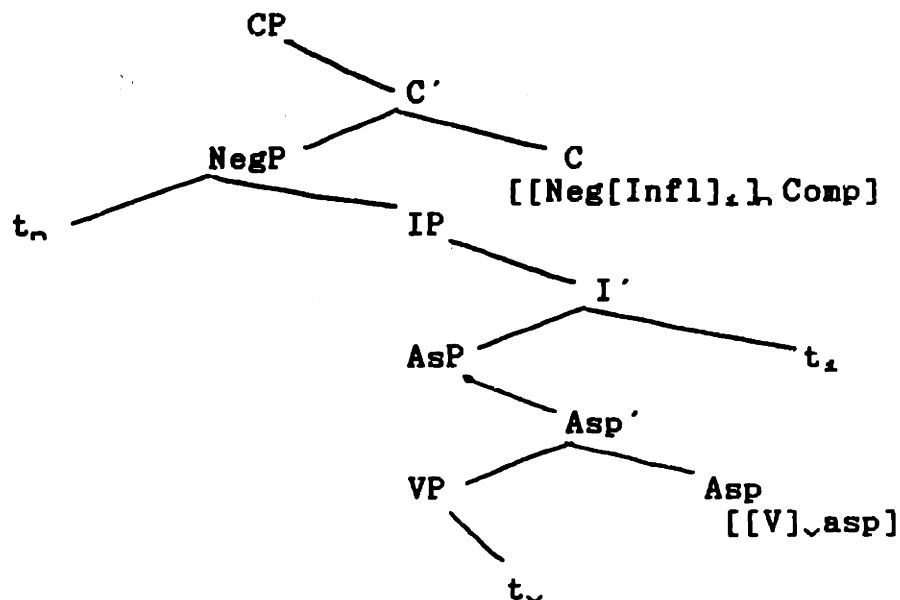
In these examples, the lexical verb must precede the negated auxiliary (33a), otherwise the sentence is ungrammatical (33b). This paradigm is exactly the opposite of matrix sentence negation, where the negated inflected auxiliary must precede the lexical verb (9a,b).

Appart from the negation facts just illustrated, the only overt difference between root and embedded clauses is the occurrence of a Comp marker in the latter. The Complementizer is a bound morpheme, and it occurs attached at the end of the inflected auxiliary. It is then natural to assume that it is the head of Comp that is making the difference in embedded sentence negation.

I will argue that in embedded clauses the same processes discussed in the previous section take place, and that what makes root and embedded clauses diverge with respect to negation is a further movement: the complex head [Neg-Infl] adjoins to Comp in embedded clauses²². The derivation is illustrated in (34):

²². Not all embedded clauses behave alike with respect to negation. Some of them may optionally behave like matrix clauses. See Laka (1988a) for more detailed discussion.

(34)



Two successive movements are involved in (34):

(i) as in root clauses, and for the same reasons as in main clauses (that is, to satisfy the TCC), Infl raises to negation also in embedded clauses.

(ii) The head of C is filled by a bound morpheme that has to be attached to Infl at S-structure; therefore, the head [Neg-Infl] further raises to Comp.

Note that this latter movement does not alter the S-structure scope properties of the negation head, since from that position it still c-commands IP. That the scope of negation is not altered in embedded clauses is shown by the fact that Subject Polarity Items are also licensed in embedded clauses:

(35) [inork eman ez dion] etxea
anybody given no has-that house-the

'The house that nobody gave him'
(Lit: the house that anybody didn't give him)

Note that adjacency or precedence requirements play no role, since arguments can intervene between the Polarity Item and Neg without affecting the licensing²³.

(36) [Inork Iboni eman ez dion] etxea
anybody Ibon-to give no has-that house-the

'The house that nobody gave to Ibon'

Under this analysis, both surface morpheme ordering and negative polarity licensing are accounted for straightforwardly, assuming standard c-command relations and head-movement. Thus, movement of the complex head [Neg-Infl] to Comp yields the surface order of negative embedded clauses illustrated in (33), and no further stipulation is needed to account both for surface constituent ordering and NPI licensing.

²³. Ladusaw (1980) presents a scope principle for English where precedence is required, if licenser and NPI are clausemates. If we try to extend this scope principle to Basque, this precedence requirement is problematic. Even if we change the precedence requirement to a 'followed by' requirement according to the head parameter, the Basque case is still problematic, since both when preceded or when followed is the NPI licensed, provided that c-command is met.

1.2.7. A Further Note on Polarity Licensing by Negation.

The subject NPI licensing test can be independently shown to be crucial when determining the position of negation and its S-structural relation with the external argument of IP.

Consider English sentence negation. Negation in English is generated inside IP. Under Pollock's analysis, for instance, it is a head projecting a NegP, complement of I. Whatever the particular instantiation, negation is structurally lower than Infl. This accounts for the fact that NPIs in the specifier of IP are not licensed by negation (Cf. examples (15a, b)).

However, if negation cliticizes onto Infl and moves along with it to Comp, it will be placed in a position where it c-commands the external argument of IP. Crucially, it is precisely in these cases when subject NPIs are licensed by negation in English:

- (37) a. Who doesn't anybody like
 b. Who does anybody not like

In (37a), the question means 'Who is the person such that nobody likes that person', whereas this interpretation is

not possible in (37b). It could be argued that the licensing of the Polarity Item in (37a) is due to the interrogative environment (presumably the head of C or the operator in its Specifier), and that the interpretation of **anybody** in conjunction with **not** is brought about independently, in Logical Form. But this would fail to explain why this interpretation of **anybody** is not available in (37b), where the Polarity Item is licensed by the interrogative environment.

The only difference between the two examples is the placement of negation, therefore it must be the fact that negation has moved (along with Infl) to Comp that accounts for the different interpretation. Note that if cliticization of Neg were to take place at Phonetic Form, we would expect no difference in interpretation between (37a) and (37b), given that this level of representation does not feed Logical Form. It must then be the case that the different configuration of the scope of Neg is established at S-structure for the facts to obtain.

There is a similar case which does not involve interrogative environments but displays the same effect. In a variety of Southern American English, modals may precede the subject,

as in the following examples ²⁴:

(38) Can you do that

'You can do that'

When the modal sentence is negative, subject polarity items are licensed only if negation cliticizes onto the modal, parallel to (37a). If negation does not cliticize, the negative licensing does not take place. The contrast is illustrated in (39):

(39) a. Can't anybody do that

'Nobody can do that'

b. Can anybody not do that

The only available reading of (39b) is that of 'free choice' any, which is commonly induced by modals. Let us assume that modals in this particular dialect of English are placed in the head of Comp²⁵; the only way to bring about the different interpretation between (39a) and (39b) is by assuming that Neg is also placed in the head of Comp by S-

²⁴. The following sentences need a certain context and a certain emphatic intonation which is not relevant for the purposes of this argument (p.c. Jim Harris and Ken Hale).

²⁵. For the purposes of this argument, it is not crucial that the modals be in the head of Comp; it is enough that they be sitting in some place higher than the subject (if, for instance, one were to maintain that the subject remains within the VP, in the spirit of (Pesetsky (1989))), whereas the modal sits in Infl.

structure. Thus, the pairs in (37) and (39) illustrate the relevance of the interpretation of NPIs to determine S-structural relations; it also illustrates minimally that an S-structure requirement crucially governs negative NPI licensing²⁴.

1.3. ENGLISH SENTENCE NEGATION: DO SUPPORT.

1.3.0. Introduction.

The most obvious syntactic effect induced in English by sentence negation is what is called 'do support': the insertion of a dummy auxiliary which supports the inflectional morphemes, as illustrated in (40a, b):

- (40) a. Mary didn't go
b. *Mary not went

It is this phenomenon that I will focus on in this section. First, I will review two recent analyses of English

²⁴. Linebarger (1987) claims that for an NPI to be licensed by negation it suffices that the NPI occurs in the immediate scope of negation at LF. She assumes that negation raises at LF. Notice that in such a configuration the specifier of IP is in the immediate scope of negation; therefore, Linebarger (1987) predicts that an NPI in the specifier of IP should be licensed in English.

negation, namely those of Pollock (1989) and Chomsky (1989).

These two proposals diverge on the question of what it is that forces *do* insertion in the presence of negation.

Pollock (1989) attributes the phenomenon to the quantificational, operator-like properties of Tense, while Chomsky (1988) argues that it results from the interaction of the Empty Category Principle (ECP) and the Principle of Economy of Derivation.

I will discuss these accounts of *do* support and argue that both of them overgenerate. I will then provide an alternative account in which *do* support is argued to be a direct consequence of the Tense C-command Condition.

Essentially, the argument to be presented is as follows: given that there is no verb raising to Inflection in English, and given that Tense is a bound morpheme, the Tense affix-hops onto the lexical verb in cases like (41):

(41) Mary left

When Neg is present, however, lowering of Tense would leave Neg not c-commanded. Insertion of the 'dummy' verb *do* is the strategy available in English to ensure that the Tense C-command Condition is satisfied.

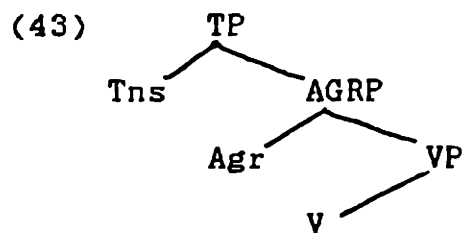
1.3.1. Pollock (1989).

Pollock (1989) explores and discusses extensively the properties of verb movement in English and French. His comparative analysis relies crucially on two subtheories of Universal Grammar: Theta Theory and Quantification Theory. Theta Theory constrains verb movement, whereas Quantification Theory makes it mandatory. It is the tension between these two subtheories, Pollock argues, that induces a phenomenon like *do* support in English. Let us review his argument in more detail.

Based on comparative data on adverb placement in English and French, Emonds (1976), (1978) concluded that French has an obligatory rule of Verb-Raising to Aux (Infl), whereas in English this rule was restricted to auxiliary verbs (Jackendoff (1972), Emonds (1976)). The presence versus absence of this rule accounted for adverb placement paradigms like (42), assuming that adverbs are generated in the same position in both languages:

- (42) a. *Mary kisses often John
 b. Marie embrasse souvent Marie
 c. Mary often kisses John

Pollock (1989) provides a new formulation of Emonds analysis, which attempts to give a principled explanation of why all French verbs must raise to Infl, while only some of them do so in English. Pollock proposes a more articulated Phrase Structure, where Infl is split into two separate heads: Tense, heading its own projection TP, and Agreement, heading an AgrP, as illustrated in (43), where Specifier positions and one-bar levels are ignored for simplicity:



Verb-Raising to Infl consists now of two steps: first, movement of V to Agr, and second, movement from Agr to Tense. Pollock argues that it is the first step (V-Agr) that distinguishes French and English, due to the different nature of Agr in these languages. Pollock claims that there is a correlation between the strength of the agreement and the ability of the verb to percolate its theta-grid through agreement once V to Agr movement has taken place. Thus, French agreement is strong enough as to allow the verb to percolate its Theta-grid down to its trace, after the verb has raised to Agr. That is, French agreement is transparent to theta marking. On the contrary, English agreement is not

strong enough as to allow percolation of the Theta-grid of the raised verb: it is opaque to theta marking. This makes it impossible for any Theta-grid bearing verb to raise to Agr, since by doing so it would fail to satisfy the Theta Criterion. Only verbs that do not have theta-roles to discharge (have/be) will be able to raise to Agr in English.

Whereas Theta Theory and the nature of Agr constrain Verb movement, Quantification Theory makes it obligatory in tensed sentences. Pollock assumes that [+finite] (i.e. [+/- Past]) tense is an operator. Like any other syntactic operator, then, it must bind a variable. What constitutes a variable for [+finite] tense is defined as in (44):

- (44) @ is a variable for [+/- Past] iff
 @ = [λ e] bound by [+/- Past]

Unlike other syntactic operators, which bind a variable left by their own movement to an A' position either at S-structure or at LF, Tense must bind a verbal variable; that is, a trace left by Verb movement. Thus, for instance, whereas in Wh-movement it is the operator itself which creates its variable via A' movement, in the case of Tense it is movement of V to Infl that provides the relevant trace. Under Pollock's analysis, Tense is strictly an S-structure operator. LF raising of Tense is therefore ruled

out in this approach, since the relevant operator-trace configuration is already created by S-structure. This view of Tense as an operator makes Verb-Raising obligatory, and thus it accounts for the obligatoriness of verb movement to Tense in French. But, as Pollock notes, it seems to lead us to a dead end in the case of English, where Theta Theory bars movement of V to Agr.

Given the universal status of Quantification Theory, Pollock argues that UG leaves two ways out of this problem: either to get rid of the Agr entirely, or to allow an auxiliary verb generated beyond the VP barrier to count as a substitute for the immovable main verb in the VP. English, argues Pollock, has taken the later option. Thus, there is always an auxiliary verb higher than VP, which raises to Tense and creates the variable this operator needs in order to satisfy Quantification Theory.

Overt auxiliaries in English do raise to Tense, creating the required Operator/variable configuration (45a). When there is no auxiliary available, English resorts to the 'dummy' verb *do* (45b):

- (45) a. Mary wouldn't do that
 b. Mary didn't do that

Since this account of **do** insertion is not contingent on the occurrence of negation, but rather on the presence of a [+finite] Tense, Pollock must assume that in present tense indicative sentences like the ones in (46):

(46) a. Mary leaves

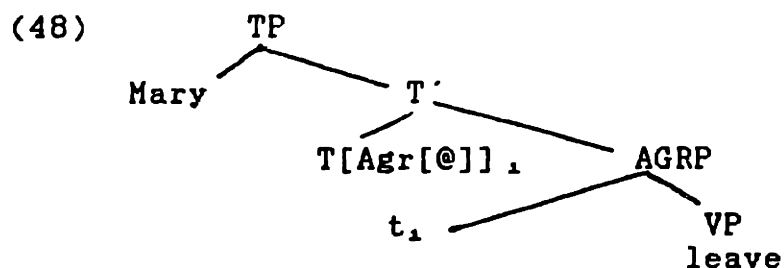
b. Mary left

There is a hidden auxiliary verb raising to Tense. Pollock claims that (46a, 46b) are essentially identical to (47a, 47b) respectively:

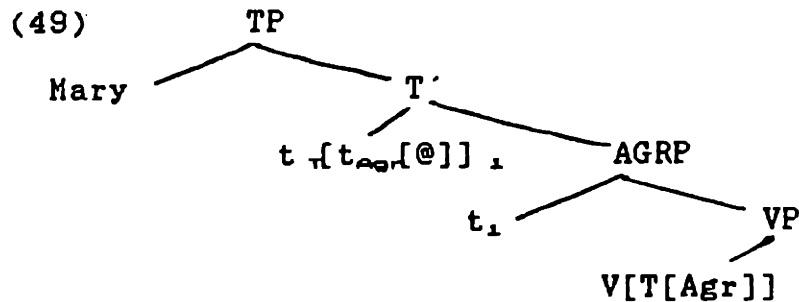
(47) a. Mary does leave

b. Mary did leave

Under Pollock's account, English has a non lexical counterpart of **do** (henceforth @). This 'empty do' shares all properties of the phonologically realized one: it is generated under Agr and it raises to Tense. Thus, the S-structure of (46b) is claimed to be as in (48):



At some point in the derivation, Tense and Agreement morphemes must hop onto the lexical verb as in (49), in order to generate the morphological unit 'left':



Note that if this affix hopping takes place at S-structure, it violates the ECP, since the traces left by Tense and Agr fail to be antecedent governed. Pollock does not discuss the level of representation at which this particular version of affix hopping would take place.

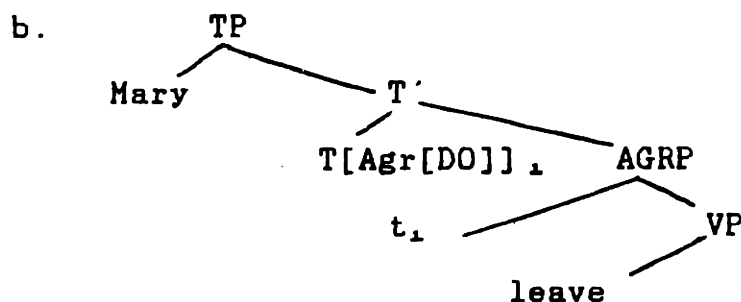
A more serious problem arises from the fact that *do* and *@*, being identical in all syntactic respects, alternate freely. We must then make sure that:

- a) empty *do* (*@*) will independently be ruled out in negative environments;
- b) lexical *do* in a non-negative (and non-emphatic) environments will also be independently ruled out.

Let us consider the first case. Pollock claims that NegP, Unlike AgrP is an inherent barrier for movement. Hence, it needs to be L-marked by *do*. Given that *do* is not lexical, it cannot L-mark NegP once it has raised to Tense. A violation of the ECP results.

Let us now look at the second case. We want to rule out a sentence like (50a), where an overt *do* has been inserted in a simple declarative sentence. The derivation of this sentence is illustrated in (50b):

(50) a. *Mary did leave



Quantification Theory is satisfied, in that Tense is binding a verbal variable left by [Agr+DO]. ECP is not violated, given that no barriers intervene between the antecedents and their traces.

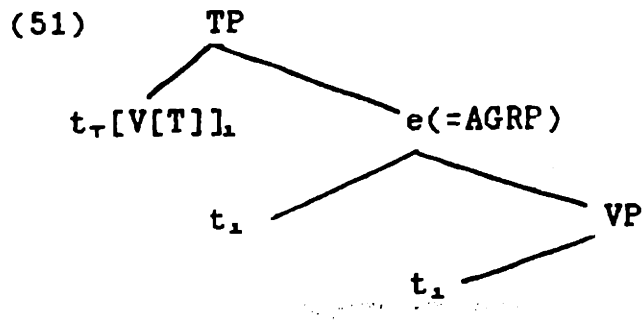
Thus, there is no independent principle of the Grammar that will rule this derivation out, therefore Pollock's account predicts it to be grammatical.

1.3.2. Chomsky (1989).

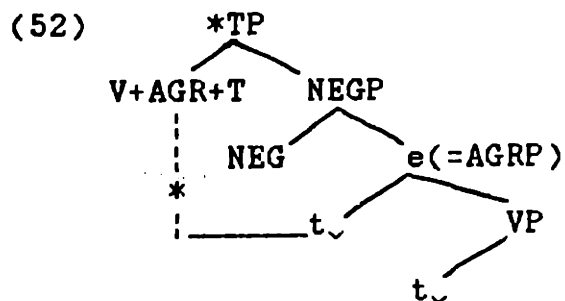
Chomsky (1989) argues that *do* insertion is forced by the ECP and the principle of Economy of Derivation (ED). This Principle states that there is a 'least effort' condition, by which UG principles apply wherever possible, favoring the shortest derivation, and that Language Particular devices are put to use only as a last resort. In this respect, Chomsky argues, *move alpha* is a UG operation, and *do* support is a language particular device. Thus, *do* support will only take place whenever *move alpha* is not enough to save a given D-structure. Based on this leading idea, Chomsky proceeds to reinterpret Pollock's analysis.

Chomsky (1989) follows Pollock in assuming that IP has an articulated structure, where Agreement and Tense head separate projections. He argues that in affirmative sentences like the ones illustrated in (46), the heads Tense and Agr lower onto the verb at S-structure. Subsequently, Agreement and the trace left by it are deleted at Logical Form, thus leaving the Agreement Projection empty. The trace left by Tense, on the other hand, satisfies the Empty Category Principle by means of raising of the inflected verb to the head Tense, creating a configuration where the trace is properly governed. This LF derivation is illustrated in

(51):



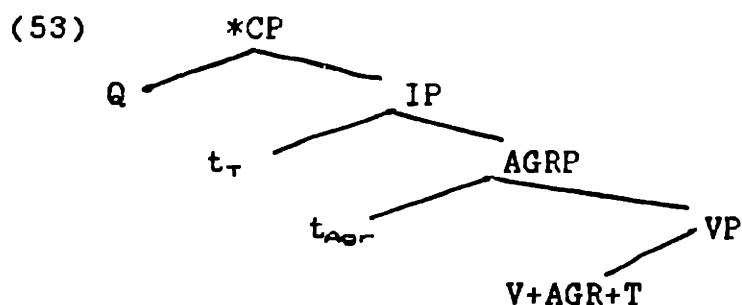
In the case of negative sentences, Chomsky follows Pollock in assuming the existence of a Negative Projection between AgrP and TP, headed by not. Given this structure, an attempt to proceed as in the declarative clause will induce an ECP violation, Chomsky argues. Let us see why: if Tense and Agr lower to V at S-structure; Agr deletes at LF, but Tense must raise all the way up to its original position in order to govern its own trace. This raising induces an ECP violation, because the head Neg prevents the intermediate trace left by the verb from being antecedent governed, as shown in (52):



In order to salvage the derivation, Chomsky argues, English resorts to do insertion at S-structure. Do is inserted in

the modal position²⁷ and then raises to Tense. This way, Tense, which is a bound morpheme in English, does not have to lower to the lexical verb, and thus LF raising from V to Agr is no longer necessary. Consequently, the ECP violation is avoided.

Consider now the account given by Chomsky to explain *do* insertion in matrix interrogative sentences. Assume that a phonologically empty Q morpheme (basically the same Q morpheme proposed originally by Katz & Postal (1964)) sits in the head Comp; lowering of Tns/Agr to V, as in affirmative sentences, would leave the interrogative morpheme unattached at S-structure, as shown in (53):

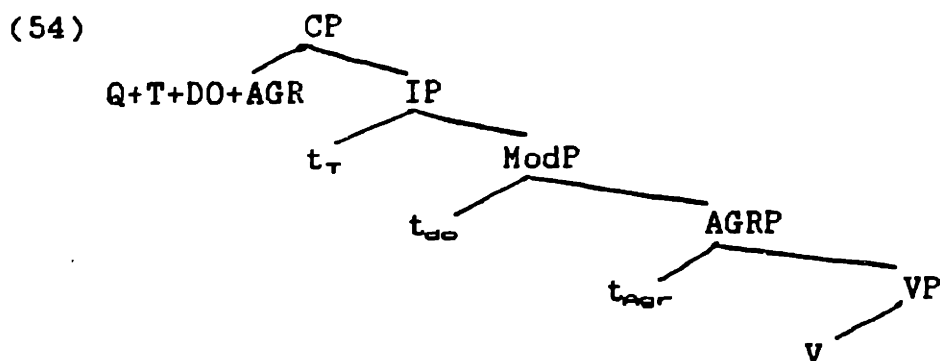


Chomsky assumes there is an S-structure requirement that affixes be attached to a base, which is violated in (53). This requirement is essentially that of Lasnik (1981): "a morphological affix must be realized as a syntactic

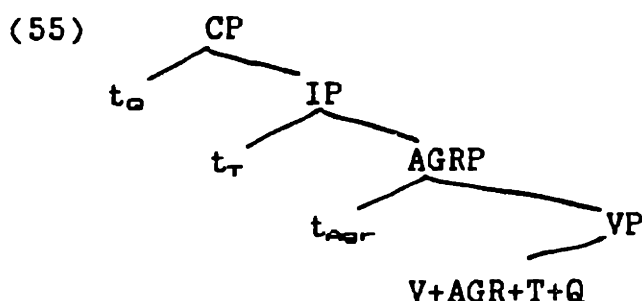
²⁷. Chomsky does not make this position explicit in the phrase structure representation.

dependent at surface structure."

The only way to rescue the D-structure, Chomsky argues, is to resort to do insertion, as in (54)²⁸:



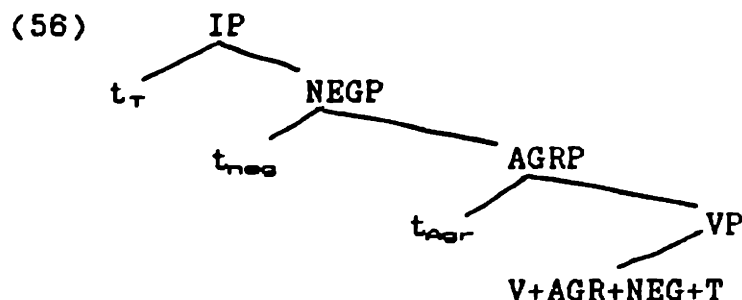
Notice, however, that it is left unexplained why it is not possible to have a derivation like the one in (55), where the interrogative morpheme, parallel to the Tense and Agr morphemes also lowers to the lexical verb:



²⁸Following Laka (1988) I will assume that the modal position where Chomsky claims that *do* is inserted is a Modal Phrase, generated between TP and NegP. This assumption makes correct predictions for English. As for Spanish, see chapter 3 in this dissertation.

At the level of Logical Form, the verb would raise to Tns and Comp, parallel to the derivation given in (51), thus satisfying the ECP. In fact, following the spirit of the Principle of Economy of Derivation, a derivation like (55) is less costly than the one in (54), because it resorts only to move alpha (lowering at S-structure and subsequent raising at LF), and it does not involve any Language Particular device like do insertion²⁷.

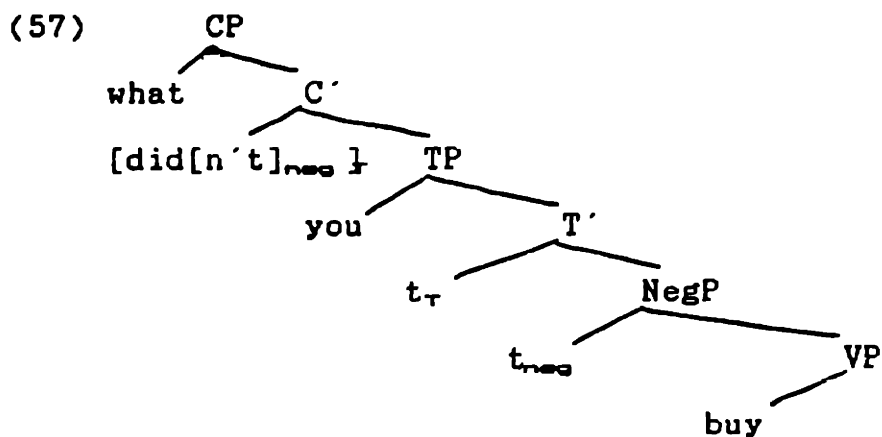
This very same question arises in the case of the account given to explain do support induced by negation; in principle, no independent principle of Universal Grammar rules out a derivation like the one in (56), where Neg, along with Tense and Agr, lowers to V:



²⁷I could be objected that, in an embedded clause, lowering of the morpheme Q would induce a violation of the selectional restrictions of the matrix verb, which demands there to be a [+wh] element in the head of the CP it selects. Although this fact could independently give a reason why Q cannot lower in these cases, the question still stands for the case of matrix sentences, and, moreover, for the case of negation, which is our focus here.

Once again, subsequent raising of the inflected verb at LF would ensure government of the traces left at S-structure.

The question of why Neg cannot undergo a lowering movement as Tense becomes even more interesting given the fact that, unlike French *pas*, English *not* does not undergo head movement at S-structure. Thus, it moves along with Inflection to the head of Comp. One example of such a case is illustrated in the S-Structure representation in (57):



That this movement takes place at S-structure is shown by data on Negative Polarity Items. As we have seen before (Cf. section 1.2.6.), the only cases where a Negative Polarity item in the Spec of IP may receive an interpretation under the scope of negation is precisely when negation moves to the head of Comp along with Inflection, as illustrated by the pair in (58):

(58) a. *anybody doesn't like him
*no(x) [x likes him]

b. who doesn't anybody like
what(y) [no(x) [x likes y]]

A possible account as to why negation cannot lower onto V at S-Structure could be constructed based on the distinction between the phonologically free standing form not and the phonologically dependant n't clitic. That only the cliticized form occurs when negation has moved to the head of Comp can be argued given the minimal pair in (59):

(59) a. What doesn't Mary like
b.*What does not Mary like

It is also true that not all inflected forms allow the clitic form of the negative marker, as illustrated by the following ungrammatical forms:

(60) a. * I amn't tired
b. * You mayn't go

Given these facts, then, it could be argued that negation could not lower onto the lexical verb because it would have

to surface as the clitic n't and this would yield ill-formed outputs like *leftn't, or *arrivedn't.

However, this answer is not a sufficient one. Take a sentence whose main verb is **do**. The clitic n't is allowed to occur attached to auxiliary **do**. Since the restrictions on the clitic are not based on syntactic or semantic features but on morphophonological ones, under which both instances of **do** are identical (they inflect identically, for instance), nothing would prevent a sentence like (61) under the hypothesis we are considering:

(61) *I didn't a mistake

There are thus two main questions begged in the analysis:

(i) Why are negation and the Q morpheme incapable of lowering to V at S-structure and be rescued by LF?

(ii) Why is it that movement of the verb at LF must skip negation?

The second question becomes even more forceful when we recall that negation in English, unlike French **pas** does undergo head movement at S-structure, as shown in (57).

The first question raised concerns both the interrogative morpheme and negation. In light of the data, it seems to be the case that there is a crucial difference between the head Tense and these two other heads, in that the former can lower at S-structure but the latter two cannot. I want to relate this to the fact that both Wh-movement and Negative Polarity Licensing are S-structure operations in English. Under the view that Wh-movement to the Specifier of CP provides the Wh-element of the required clausal scope, it is reasonable to think of the interrogative morpheme in the head of Comp as some sort of scopal element, signaling the scope of the question.

Given that Wh-movement in English takes place at S-structure, we can assume that the morpheme in the head of Comp must signal its scope also at S-structure, and that lowering of this morpheme would alter its scopal properties. Similarly, in the case of negation, there is a correlation between the fact that Polarity items are licensed by negation at S-structure, and the impossibility of lowering this head.

Both the interrogative morpheme and negation, then, have S-structure scopal requirements that make them unable to lower at this level of representation. In this respect, these two

heads behave like other adverbs (Cf. only), or like floating quantifiers, whose scope is also determined by their S-structure position.

Assuming this to be correct, the first objection to Chomsky's analysis can be explained away. The reason why derivations like (55) and (56) are out is because they alter the S-structure scope of the morpheme Q and negation.

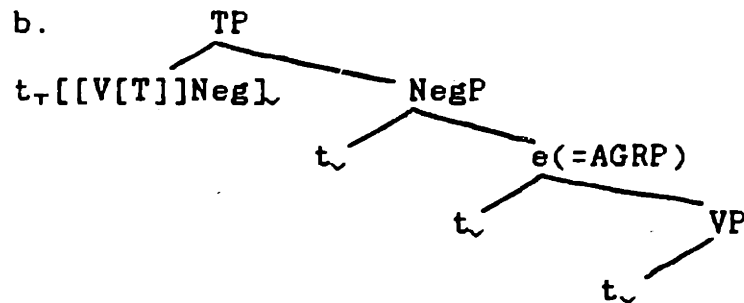
Let us now turn to the second question. Even if negation cannot lower to the verb at S-structure, I have presented evidence that it undergoes head movement to Comp along with Tense. If this is the case, then, we must explain what is it that prevents a derivation like the following, where:

- a) At S-structure, Tense lowers onto V, skipping Neg;
- b) At LF, the inflected V raises to Agr and then to Neg, and then to Tense.

A derivation like this would give us a sentence like (62a), where the lexical verb is inflected for tense and agreement, and negation is left in its place.

The LF representation of this derivation, where the inflected verb raises step by step through each of the available heads, including Neg, is shown in (62b):

(62) a. Mary not left



Let us consider this LF derivation in more detail. In the first step, the verb, which has Tense attached to it, raises to the empty projection e , left by the deleted Agr. From this place it can govern the trace left in the original position. In the next step, $[V[T]]$ adjoins to Neg, and subsequently $[[V]T]Neg$ adjoins to the trace left by Tense. The trace left in the position of Neg is properly governed in this configuration. The question to be answered is whether the trace of Tense is governed in the last step of (62).

In this last step we have a complex head, created by X^0 movement. This complex head consists of three elements, and we want to know whether the deepest one (tense), is able to govern its trace, to which the complex head is adjoined. The configuration is as follows:

(63) $[[[[x] y] z] t]$

Where the whole structure is a head (X^0), created by means of successive head movement. Let us consider in detail how the government relations work in this configuration. The definition of Government is stated in (64):

(64) A governs B iff

A c-commands B and there is no category C such that C is a barrier between A and B. (Chomsky (1986)).

As discussed by Baker (1987), the first requirement in the definition is met: a head A adjoined to a head B c-commands all elements that y itself c-commands³⁰. This assumption is also made by Chomsky (1989), although no precise formulation of it is provided.

In a configuration like (63), then, all elements c-command each other, thus x in particular c-commands its trace t. Are there any barriers intervening between x and its trace? No, unless the other two segments of the head (y and z) are taken to be barriers.

³⁰. This result can be brought about in two different ways: either by assuming Aoun and Sportiche's (1983) definition of c-command in terms of maximal projections, as Baker (1987) does, or, alternatively, by assuming with May (1985), Chomsky (1986), that adjunction nodes do not count for c-command relations. Given that the head movements under discussion here involve adjunction, all elements in the head have the same c-command domain.

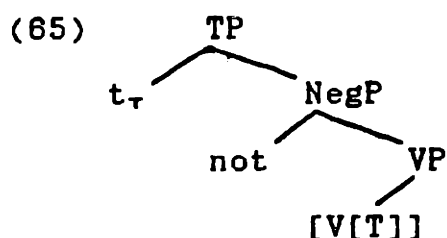
Chomsky (1989) assumes that one intervening segment in a complex head does not constitute a barrier for government. That is, in (63), *y* is not a barrier for *x* and similarly *z* is not a barrier for *y*, or *t* a barrier for *z*. Given that barrierhood inheritance applies only to maximal projections, we can conclude that there are no barriers intervening between *x* and its trace.

1.4.DO SUPPORT AS A CONSEQUENCE OF THE TCC.

I will now argue for an alternative account of *do* support that does not run into the overgeneration problems faced by Pollock (1987) and Chomsky (1988). In this account, *do* support is viewed as a direct consequence of the Tense C-command Condition.

I assume here Chomsky's (1989) analysis of affix hopping in English: Tense and Agr lower to the lexical verb in affirmative sentences where no auxiliary verb is present, and subsequent raising at LF satisfies the ECP. In negative sentences, lowering of Neg onto the verb is ruled out because the scope of Neg must not be altered at S-structure, as argued in the previous section.

The sentence we want to rule out is (62a), where Tense has lowered leaving Neg behind. If we consider this sentence in the spirit of the TCC, it is immediately ruled out at S-structure since Neg, a functional head operating on the event, is no longer C-commanded by Tense:



Verb raising is not available in the grammar of English, and LF raising will not rescue (65) because the requirement holds at S-structure. Therefore, the only way to salvage the derivation is the insertion of *do* at S-structure, in order to maintain the C-command relation.

By assuming the TCC to be the UG principle forcing *do* insertion, the correct set of data are predicted and the problematic cases in Pollock (1987) and Chomsky (1989) are explicitly ruled out. Further, the apparently unrelated effects induced by negation in both English and Basque find a unified explanation, rooted in Universal Grammar.

1.5. WHEN TENSE IS NOT THERE: INFINITIVALS

The TCC is a requirement on Tense: It states that this syntactic category must c-command the inflectional heads that operate on the clause.

It is this property of UG that explains why in Basque the auxiliary fronts, and in English *do* is inserted when negation is generated in Inflection. If it is the head Tense that is crucially involved in these syntactic phenomena, we expect that clauses lacking Tense may not display such phenomena. I will now argue that this prediction is indeed borne out. The relevant evidence is found in non-finite clauses.

Under the assumption that non-finite clauses lack Tense, we expect that no fronting will take place in Basque, and no *do* support in English, when negation is present in clauses lacking Tense.

Consider the following Basque infinitival sentences.

- (66) a. *ez gezurrik esan*
no lies-part say

'do not say lies'

- b. *mila bider agindu dizut [ez ardorik edateko]*
thousand times ordered I-have-you no wine-part drink-to

'I have told you one thousand times not to drink wine'

Notice that the object of the infinitival clause intervenes now between the negation *ez* and the infinitival *esan* in (66a) and *edateko* in (66b). Recall that no element could intervene between the negative morpheme and the auxiliary in finite clauses.

The examples in (67) illustrate that it is not only the object that can intervene between negation and the infinitival verb: in (67a) we see a dative and the object, both in between *ez* and *esan*. In (67b) we see a time adjunct *igandean* 'on Sunday' and the object, placed between *ez* and the embedded infinitival *edateko*:

- (67) a. *ez umeari gezurrik esan*
 no kid-to lie-part say

'do not tell lies to the kid'

- b. *isekok eskatu dit [ez igandean ardorik edateko]*
 aunt asked has-me no sunday-on wine-prt drink-to

'auntie has asked me not to drink wine on Sunday'

Non-finite clauses are the only cases in basque where the sentence negation morpheme can surface unattached. Under the TCC hypothesis, why this is so is trivially explained: there is no Tense head in the clause, and thus there is no requirement to be met.

Note that this evidence shows that the effects induced by the TCC cannot be reduced to a morphological requirement governing inflectional morphemes. Negation could not be marked in as a bound morpheme in the lexicon. If that were the case, it would have to cliticize onto some other elements in the examples in (66) and (67), and it would not be able to occur as a free standing form. Its morphological status is therefore not marked in the lexicon. Let us assume that Neg is marked for its X⁰ status. It is independent principles of UG, like the TCC, that determine whether some other element will move to that x⁰ position.

Now consider English non-finite clauses. Recall that the account of do-support put forward here is crucially linked to the presence of Tense: because Tense must c-command negation at S-structure, it cannot lower onto V and it must remain in the head of TP. The dummy verb do is inserted to support Tense. In an infinitival clause, however, do support will not take place because there is no Tense, and hence the TCC does not apply in that clause. This expectation is indeed borne out: there is no do-support in English infinitival clauses:

(68) a. I told you not to go

b. Auntie asked me not to drink wine on Sundays

Whatever the syntactic status of the infinitival maker *to*, it is clear that it lacks temporal specification (Zagona (1988)). Thus, it is not a Tense head. This is why it need not c-command the negative marker, as in (68).

Note that these examples are parallel to the ones in Basque: infinitival sentences differ considerably from finite sentences in their syntactic behavior when negated. The negative head appears to be the same; the crucial difference is thus the presence versus absence of Tense.

Note also that the notion of Tense that the TCC refers to is strictly syntactic, not semantic. Thus, for instance, it is standardly assumed that imperative sentences lack a Tense interpretation. However, natural languages display both tensed and untensed commands, and whereas tensed imperatives must meet the TCC, untensed ones do not.

Both English and Basque provide relevant evidence that confirms this claim. Consider English first: imperatives in English behave exactly like any other tensed sentence, in that the presence of negation induces *do*-support, as

illustrated in (69)³¹

- (69) a. come here
b. *not come here
c. do not come here

In embedded context, imperatives change into infinitivals in English. As a result, they stop triggering *do* support, as the examples in (68) already illustrate.

Consider now the case of Basque: as shown in the examples in (67a) and (67b), infinitivals can be used to convey commands. There is, however, a specific imperative inflection, illustrated in (70):

- (70) a. etor hadi hona
come do-you here
come here (you)

³¹ As for imperatives that display a *do* in non negative forms, like (i)

(i) do come here

I assume that they have an emphatic element, just like emphatic indicative sentences like (ii):

(ii) I did go there

I argue in chapter 2 that these cases are essentially identical to the negative case, except that the only phonological content of the emphatic morpheme is stress, as in Chomsky (1957). Chomsky (p.c.) points out that there is indeed a difference in meaning between imperatives like (i) and normal positive declaratives.

When these imperative forms are negated, they again behave like indicative inflected sentences: the inflected auxiliary must raise to the head Neg, otherwise the result is ungrammatical:

(71) a. ez hadi etor hona
no do-you come here

'do not come here'

b. *ez etor hadi hona

This contrast between (67) and (71) can be easily explained in the same way the English contrast is: imperative inflection involves a Tense head in the syntax, and therefore these sentences are subject to the Tense-C-command Condition. This is why inflected imperatives display the same phenomena that other tensed sentences do, whereas infinitival commands do not.

1.8. A COROLLARY ON THE TENSE C-COMMAND CONDITION: HEBREW

Under the assumption that the TCC holds universally, the prediction made is that no language will allow a non c-commanded sentence negation in a tensed sentence. However, a non c-commanded negation could be allowed in a non-tensed sentence.

A possible counterexample for the TCC, then, would be a language allowing a structure like [Neg XP V/I] in a tensed clause. Hebrew sentence negation appears to be this case³².

Hebrew has two different negation particles, *eyn* and *lo*, with the following distribution (examples from Ritter (1988)):

- (72) a. *Eyn* Dani *yodea* Ivrit
neg Danny knows Hebrew
'Danny doesn't know Hebrew'
- b. **Eyn* Dani *yada* Ivrit
neg Danny knew Hebrew
('Danny didn't know Hebrew')
- c. **Lo* Dani *yada* Ivrit
neg Danny knew Hebrew
('Danny didn't know Hebrew')
- d. Dani *lo* *yada* Hebrew
Danny neg knew Hebrew
'Danny didn't know Hebrew'

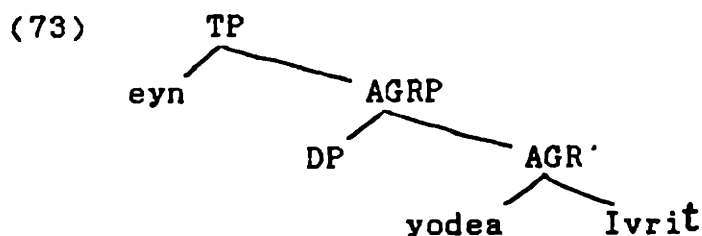
Example (72a) looks like a direct counterexample for the TCC. Interestingly, though, the distribution of *eyn* and *lo* is determined precisely by the presence versus absence of Tns in the sentence. The negative element *eyn* only occurs in

³². The following Hebrew paradigm was provided by Betsy Ritter, who pointed out its relevance for the TCC.

infinitives, gerunds and what are called 'benoni' verbs.

Berman (1978) distinguishes Hebrew verbs in terms of the feature [Tense]: past and future finite forms are [+Tense], infinitives and gerunds are [-Tense], and 'benoni' verbs are [0 Tense]. Doron (1984) and Rapoport (1987) claim that the functional head (Infl) of benoni verbs contains Agr but not Tns.

Under an analysis along the lines of Pollock's work, where Agr and Tns are two different heads, Ritter (1988) argues that *eyn* occupies the head Tns as in (73):



Therefore, the example in (72a) does not violate the TCC, since either there is no Tense in the sentence, or *eyn* itself bears the Tense features of the clause. The case of the negative element *lo* is more similar to negation in English: it is an adjoined particle c-commanded by Tense at S-structure, thus the ungrammaticality of (72c), where it is not c-commanded by Tense, in violation of the TCC.

1.7. ON LF RAISING OF NEG ABOVE TENSE.

It is customary in the semantic literature to regard propositional operators like negation as taking scope over the entire proposition at Logical Form. Hence, any negative sentence like (74a) is represented at Logical Form in the form of (74b):

- (74) a. Mary didn't leave
 b. no [Mary left]

Where the negative operator has scope over the whole clause. Under this assumption, it is rather surprising that there should exist a syntactic requirement like the Tense C-command Condition, which requires not that Negation c-command Tense, but, rather, that Tense c-command Negation.

It is not logically impossible that natural languages are such that syntax and semantics simply do not conform to each other. Thus, it could certainly be the case that universal syntax must meet certain requirements that have absolutely no reflex in the semantic component.

The evidence presented in this chapter in favor of the existence of a syntactic requirement like the TCC is solely based on syntactic processes: it looks like some deep rooted property of our language faculty is such that it requires the TCC to be met. The kind of evidence and arguments presented are, I think, enough and self-contained, even if nothing in the semantics of Tense and propositional operators in natural languages seem to bear any relation to the properties of Tense and Neg as syntactic objects.

Nevertheless, a second alternative is certainly worth wondering about. It could also be the case that a condition on the relative position of Tense and other propositional operators at S-structure bears some tight relation to the way in which they are mapped onto Logical Form.

It is well known that elements under the scope of negation that are focalized get a contrastive focus reading (Jackendoff (1972)):

(75)

- a. Mary didn't BUY a book yesterday, she STOLE it
- b. Mary didn't buy A BOOK yesterday, she bought A HORSE
- c. Mary didn't buy a book YESTERDAY, she bought it TODAY

In these sentences, what is negated is that constituent that is focalized, somehow. Without entering into an analysis of this phenomenon (see Jackendoff (1972), Rochemont (1978)), I want to consider some implications for the traditional way of representing negation in Logical Form.

Recall the semantic representation of a simple negative sentence like (74a), given in (74b), which is repeated in (76):

(76) NO [PAST, Mary leave]

There is no reading of a simple negative sentence where it is the Tense that is focalized and as a consequence acquires a contrastive focus reading. The sentence would be like:

(77) Mary DIDN'T leave

And the reading that we are considering would be something like: "it is not in the past that Mary left". But If something like (76) is the semantic representation of (77), it is not clear why this reading is not available. Notice that there is nothing implausible about this reading, and, further, that it is available in negative sentences that do not involve the head of NegP:

(78) a. Nobody HAS a car, we HAD it

b. No student BOUGHT a book, they WILL buy it

The impossibility of contrastively focalizing Tense under Negation is rather surprising under the standard view of Negation as a propositional operator that takes scope over the entire proposition.

Let us consider an alternative that would predict the phenomena just considered. Let us assume that the LF representation of a negative sentence like (74a) is (79):

(79) PAST [NO [Mary leave]]

Here it is the Tense that has scope over the proposition, and also over the negative operator. The fact that one cannot make a negative sentence mean "It is not in the past that..." now follows from standard considerations about the scope of negation.

CHAPTER 2:

THE Σ PROJECTION

2.1. SIMILARITIES BETWEEN NEGATION AND AFFIRMATION.

Consider the following two parallel paradigms, from English and Basque respectively:

- | | |
|--------------------------|---|
| (1) a. Mary left | (2) a. Mari joan da
Mary left has

'Mary has left' |
| b. Mary didn't leave | b. Mari ez da joan
Mary not has left

'Mary hasn't left' |
| c. *Mary did leave | c. *Mari da joan
Mary has left

('Mary has left') |
| d. Mary <u>did</u> leave | d. Mari da joan
Mary has left

' <u>Mary</u> has left' |

Examples (1a) and (2a) both illustrate declarative sentences from English and Basque. The English sentence has a single inflected verb. The Basque sentence shows a non inflected lexical verb followed by an inflected auxiliary.

(1b) and (2b) are negative sentences. The English sentence displays **do support**, and the Basque sentence shows an alteration of the normal verb-auxiliary order given in (2a).

Examples in (1c) and (2c) show that it is not possible to have **do-support** in a declarative sentence, in the case of English, and that it is not possible to front the auxiliary in a declarative sentence in Basque.

In examples (1d) and (2d) we can see that, in the case of an emphatically affirmative sentence, both languages resort to the same mechanism they used in the case of sentence negation: **do-support** in English, and auxiliary fronting in Basque.

The particular strategies to which these two languages resort are very different in nature: English resorts to lexical insertion ("**do-support**"), whereas Basque appeals to syntactic movement (fronting of the auxiliary).

Nevertheless, the fact that the same strategy is used both in negative and affirmative constructions and prohibited in declarative sentences is rather striking, even more so given that Basque and English are typologically very different languages.

In the first part of this chapter, I will argue that the

paradigm illustrated in (1) and (2) is not a coincidence. I will follow the idea put forward by Chomsky (1957) that there is a morpheme **Aff** (for affirmation) which induces do-support in the exact same way in which negation does. I will adapt this idea to the current theoretical framework and some recent proposals in the literature. In particular I argue here that, similarly to the way in which the head **Neg** can head its own functional projection (Kitagawa (1986), Pollock (1989)), there is also a X^{Aff} , which projects an Affirmation Phrase. These two heads (**Neg** and **Aff**) are further argued to belong in the same syntactic category, which I will call Σ .[†] Thus, both **NegP** and **AffP** are claimed to be different instantiations of a more abstract projection: the Σ Phrase.

If this view is correct, Negation is not a syntactic category of its own in natural languages. Rather, that aspect of negation which is encoded by (at least some) natural languages as a functional head is an element of a broader syntactic category. Similarly, that aspect of emphatic affirmation that (at least some) natural languages build in as a functional head would belong in the same syntactic category as negation.

[†] The name Σ was suggested to me by Pesetsky, and it suggest the notion of **Speech Act** (affirmation and denial).

It should be kept in mind that this syntactic category that includes negation and affirmation doesn't cover the topic of negation and affirmation or emphasis in natural languages. It is well known that negation is a pervasive phenomena, and that its instantiations go beyond the case of sentence negation. Thus, in the following examples,

- (3) a. I didn't read any book
b. I read no book

Only (3a) is an instance of sentence negation (NegP), although both examples have roughly the same meaning. The second example presents a negated DP, and thus it does not induce do support, for example, which is a clear symptom of the presence of sentence negation. In assuming that (3a) and (3b) have different D-structures, I depart from Klima (1984), who derives both from the same base structure. Similarly, emphatic affirmation can be instantiated by means other than the aff head, as (4a) and (4b) illustrate:

- (4) a. I did read the book
b. I read the book

As in the case of negation, I do not assume that these two sentences share identical D-structures. Only some instances of emphatic affirmation involve the aff head.

2.2. EVIDENCE FROM ENGLISH.

The idea that (1b) and (1d) are intimately related constructions is an old one within the generative tradition, although it has not prevailed in the literature thereafter. It was first proposed by Chömsky (1957), who argued that there existed in the grammar of English a morpheme A, which was responsible for emphatic constructions like (1d):

'In treating the auxiliary verb phrase we left out of consideration forms with the heavy stressed element do as in "John does come," etc. Suppose we set up a morpheme A of contrastive stress to which the following morphophonemic rule applies.

(45) ..V...+A ---> ..V"... , where " indicates extra heavy stress.

We now set up a transformation T_A that imposes the same structural analysis of strings as does T_{not} , and adds A to these strings in exactly the position where T_{not} adds not or n't. Then just as T_{not} yields such sentences as

- (46)
(i) John doesn't arrive (from John#S+n't#arrive, by (40))
(ii) John can't arrive (from John#S+can+n't#arrive)
(iii) John hasn't arrived (from John#S+have+n't#en+arrive)

T_A yields the corresponding sentences

- (47) (i) John does arrive (from John#S+A#arrive, by (40))
(ii) John can arrive (from John#S+can+A#arrive)
(iii) John has arrived (from John#S+have+A#en+arrive)

This T_A is a transformation of 'affirmation' which affirms the sentences "John arrives". "John can arrive", "John has arrived", etc, in exactly the same way as T_{not} negates them. This is formally the simplest solution, and it seems intuitively correct as well."
(Chömsky (1957:65))

Chomsky (1957) makes a clear parallel between the two elements *not* and the stress morpheme *A*: one of them negates the kernel sentence and the other one affirms it. They are identical operations with opposite semantic values.

Klima (1964), later argued for a similar idea: the existence of an empty morpheme *Emph*, which had the same distributional characteristics as the morpheme *Neg*, and thus induced the same syntactic effects (i.e. *do*-support). The rule of Tense-attachment attached Tense to the immediately following verbal form; this verbal form could either be a modal, and auxiliary verb or a lexical verb, as shown in (5):

(5)

II. Tense-attachment (KLIMA, 1984:256)

$$\text{Tense} \left[\begin{array}{c} [\text{will}]_M \\ \text{have} \\ \text{be} \\ [\text{sleep}]_V \end{array} \right] \Rightarrow \left[\begin{array}{c} \text{will} \\ \text{have} \\ \text{be} \\ \text{sleep} \end{array} \right] + \text{Tense}$$

The particle *not* was generated immediately after *aux*, which did not include lexical verbs like 'sleep'. When the *aux* consisted only of one element (Tense), the presence of *not* produced the string [Tense-not-V], which didn't satisfy the structural description required by the rule in (5), thus blocking its application. Any unattached Tense would then trigger insertion of *do* as a support. Thus Klima (1964), similarly to Chomsky (1957), also postulates the existence

of a particle whose only phonological content is stress. However, there is no specific claim about whether these particles and not belong in the same syntactic category.

What follows here takes up Chomsky's (1957) original idea and reinterprets it within the current framework; more specifically, in terms of X-bar Theory and head movement. I will assume with Chomsky (1957) that there is a positive **Aff** morpheme, which is the counterpart of the negative head **Neg**.

What I will argue is that this positive morpheme **Aff** is a functional head, generated below Tense and Modals in English, and that it projects a functional phrase exactly like **Neg** does.²

This is shown in (6a), which can be compared to a negative structure like (6b):

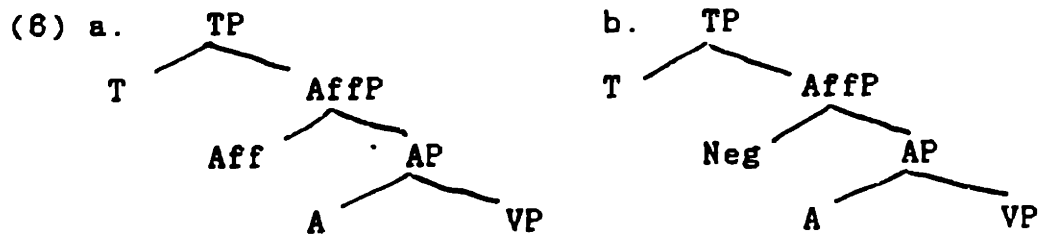
² Pollock (1989) speculates in a footnote on the existence of an Ass(ertion) Phrase headed by an 'emphatic do'. In sentences like

(i) He did so faint

the element **so** would be sitting in the Spec of this Assertion Phrase. In sentences like

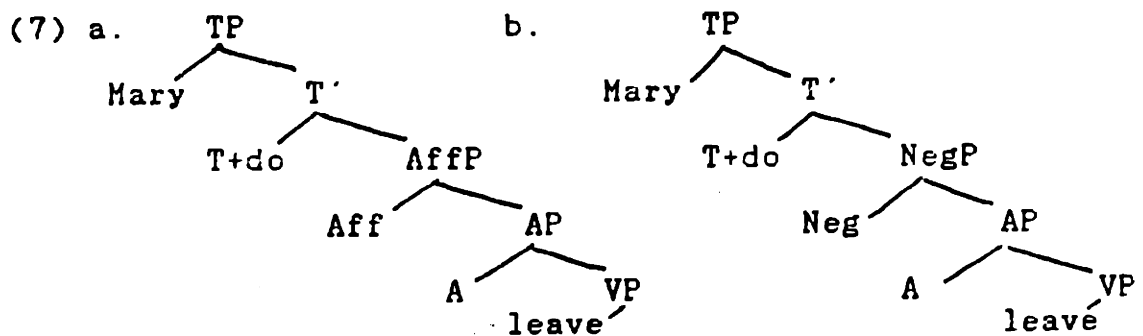
(ii) He did faint

The specifier of the Phrase would be null.



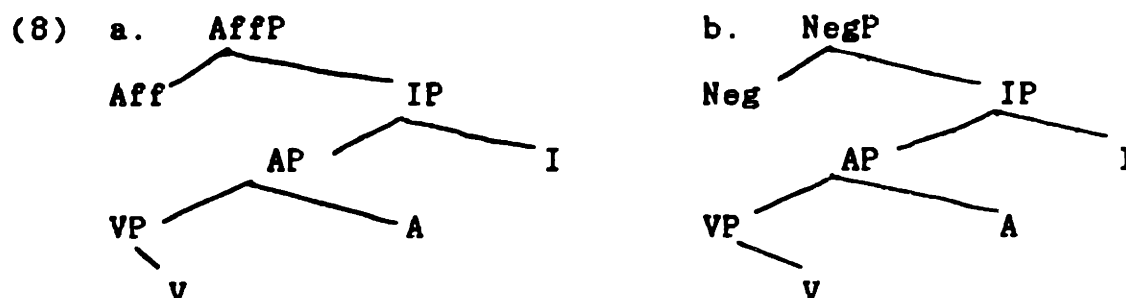
Aff is an inflectional head, which has its own syntactic projection. Therefore, **Aff** is subject to the Tense C-command Condition (TCC), in the same way **Neg** is.

As argued in the first chapter, in a configuration like the one in (6), the only way in which English can satisfy the TCC when there is no auxiliary or modal in the sentence is by inserting a dummy *do*. This prevents the Tense morpheme from lowering onto the Verb at S-structure, thus avoiding a violation of the TCC. Hence, the derivation of (1d) is identical to the derivation of (1b), as shown in (7):

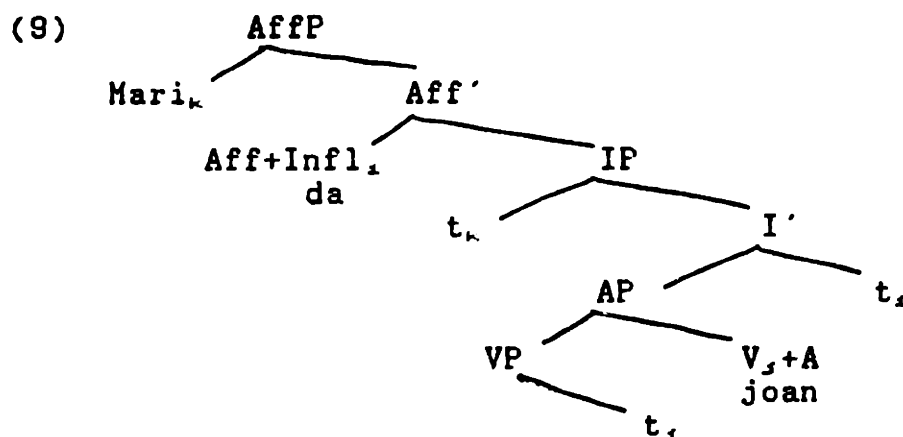


2.3. EVIDENCE FROM BASQUE.

I will argue that the picture that arises in English also obtains in Basque, modulo language particular differences. The emphatic construction in (1d) involves an **Aff** head, which projects a Phrase, the same way **Neg** does. Similarly to **neg**, the **Aff** head is initial instead of final, as illustrated in (8):



Given that the Affirmative Phrase is also generated above IP, it triggers raising of Infl as the only way to satisfy the Tense C-command Condition. The derivation of (1d) is illustrated in (9):



Thus, the paradigms in (1) and (2) are explained in a uniform way, under the assumption that Negation and Affirmation are generated in the same projection both in English and in Basque. Moreover, the behavior of these emphatic constructions provides further evidence for the Tense C-command Condition, and for the claim that this UG requirement does not only apply to negation, but to other functional heads as well.

2.4. NEG AND AFF ARE IN COMPLEMENTARY DISTRIBUTION.

The two functional heads *neg* and *aff* are in complementary distribution, both in English and in Basque. That this is the case for English is shown by the following paradigm⁷:

- (10) a. I didn't, as Bill had thought, go to the store
 b. I did, as Bill had thought, go to the store
 c. *I did not, as Bill had thought, go to the store

The examples in (10) are all cases of sentence negation; the parenthetical phrase has been inserted between Infl and the verb in order to block constituent-negation readings where negation is attached to the lexical verb and does not take scope over the sentence.

⁷ I am indebted to Michael Hegarty and Chris Tancredi for pointing out these facts to me.

(10a) is a case of sentence negation, where there is no special stress placed on the auxiliary verb. (10b) is an instance of the emphatic construction that involves the head **Aff**. The example (10c) has both together: the auxiliary verb is stressed and followed by sentence negation. The sentence results in ungrammaticality.

A similar paradigm obtains in Basque. In Eastern Dialects (where the type of positive declarative construction shown in (1d) is more frequently used), there is a construction that involves both affirmative fronting and negation (Laffite (1944)). This construction is illustrated in (11):

- (11) Nik diot Mariari trikota ez eman
 I have to-Mary sweater-the not given
 'I have not given the sweater to Mary'

If it is true that the affirmative construction involves an empty **Aff** morpheme which is in complementary distribution with the morpheme **Neg**, then we expect that, similarly to the English examples in (10), the example in (11) involves constituent negation of the verb **eman** 'give', and not sentence negation as in (2b).

Recall that sentence negation in Basque has S-structure scope over the entire IP (Cf. chapter 1). As a consequence of this fact, subject Negative Polarity Items are licensed by Neg in Basque (unlike in English, Cf. section 1.2.3.). If the negative morpheme in (11) were an instance of sentence negation, we would expect it to license subject Negative Polarity items. However, this kind of negation is unable to do so, as shown in (12):

- (12) a. *Mariri dio inork trikota ez eman
 to-Mary has anybody sweater not given
 ('Nobody has given the sweater to Mary')
- b. *Nik diot inori trikota ez eman
 I have anybody-to sweater not-given
 ('I haven't given the sweater to anybody')

Negative Polarity Items in Basque are licensed in all verbal arguments, given that Neg has S-structure scope over the

whole IP.⁴ Thus, the data in (12) supports the claim that the examples in (11) and (12) are cases of constituent negation, and the negative morpheme is not heading a NegP.

Oyharçabal (1984) presents evidence that further distinguishes the constituent negation case in (11) from a sentence negation case like (2b). Sentence negation can take wider scope than a universal quantifier in subject position, but constituent negation cannot. Consider the following pair:

- (13) a. [_{NegP} ez dira_i [_{IP} denak etorri t_i]
 not-have all come
 ‘All didn’t come’
- b. [_{NegP} denak_i [_{Neg} ez dira_j [_P t_i etorri t_j]
 all not-have come
 ‘All didn’t come’

⁴ There are examples where it would look like the negation is licensing a Negpol:

- (i) Nik diot deusik ez eman
 I have anything not given
 ‘I have given her/him nothing’
- (ii) Nik diot inori ez eman
 I have anybody-to not given
 ‘I have givenit to anybody’

But this illusion disappears when we introduce some element between the Negpol and the negation, as in (9). The reason why sentences like (i) and (ii) are good is because their structure is as in (iiia, b):

- (iii) a. Nik diot pro [deusik ez] eman
 I have [not anything] given
- b. Nik diot [inori ez] pro eman
 I have [not to anybody] given.

Both (13a) and (13b) are instances of sentence negation:

(13a) shows the auxiliary having moved to Neg at S-structure, in order to satisfy the TCC. (13b) is identical to (13a), except for the position of the subject: the subject denak is outside of IP, presumably sitting in the specifier of the NegP. Both these sentences have as their most salient (and for many speakers only) reading the equivalent to 'Not all came'.

Consider now (14), which is identical to (12) in all relevant respects:

- (14) [_{NP} denak_j dira_i [_{IP} t_j [_{VP} etorri] t_i]
all have not-come
'All did not come'

The only available reading for this sentence is 'All of them were such that they didn't come', where negation does not take scope over the universal quantifier. This further confirms the claim that the negative morpheme that occurs in emphatic sentences like (12) is not heading a Negative Phrase, and that it is not an instance of sentence

negation.⁵

The contrast noted by Oyharçabal (1984) for Basque also obtains in English: only sentence negation can take wider scope over a subject universal quantifier. Whereas (15a) can be interpreted as 'Not all of them went to the store', this reading is not available in (15b). The only interpretation available in the case of (15b) is 'All of them were such that they didn't go to the store'.

(15) a. All of them didn't go to the store.

b. All of them did not go to the store

Therefore, I conclude that Neg and Aff are in complementary distribution.

2.5. THE Σ CATEGORY AND THE Σ PROJECTION.

The material presented above strongly suggests that there is a deep syntactic similarity between Negation and Affirmation, which goes beyond the particulars of English or

⁵ Pesetsky (p.c.) points out a problem posed by the mere existence of what we are here calling constituent negation. So far, nothing we know of prevents a sentence like (i): (i) Mary not left

Where not is an instance of constituent negation. Note further that nothing prevents the following sentences either: (ii) that not_{CP} Mary left]

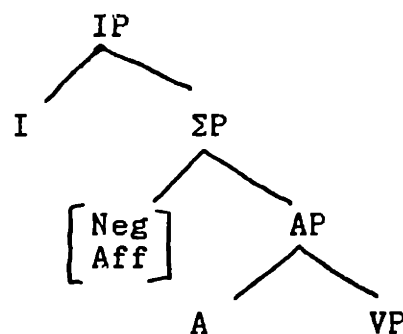
(iii) not_{CP} that Mary left early] worries me

Basque Grammar. More specifically, the data discussed indicate that the functional head **Neg** and the functional head **Aff** have many properties in common: They head a separate functional projection, and this projection is generated in the same position in the Phrase Marker. Moreover, this position is subject to parametric variation: below Tense, as in English, or above Tense, as in Basque.

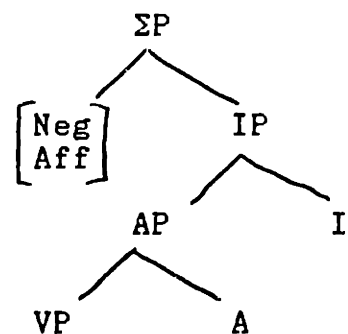
Similar syntactic behavior and complementary distribution are quite reliable symptoms when determining whether two given items belong in the same syntactic category. Given that the heads **Neg** and **Aff** do exhibit both of these symptoms, we can conclude that they are elements of a broader set, rather than categories of their own.

I will conclude that both these heads belong in a more abstract category, which I will call Σ . This category Σ projects a Σ Phrase, as schematized in (16):

(16) a. English



b. Basque



The claim made here is that natural languages do not have a separate syntactic category for negation, but rather include this element in a broader, more abstract category. One other element of this category, as I have argued, is emphatic affirmation.

2.5.1. Elements in Σ .

Are there more elements that belong in Σ ? I will now argue that the answer to this question is affirmative: there is at least one more element, both in English and in Basque that belongs in this Σ category.

In English, the element to consider as a possible candidate for Σ is emphatic *so*. Klima (1964) notes that

...with certain minor differences as to permissible environments, the rules for describing the particle *so* duplicate those of *not*. Their placement in the finite verb chain is the same and both occasion a supporting *do* in the same way. (Klima 1964:257)

This behavior of *so* is illustrated in the paradigm in (17), taken from Klima (1964):

- (17) a. The writers could *so* believe the boy
 b. *The writers *so* believed the boy
 c. The writers did *so* believe the boy

The meaning of this particle is tightly linked to negation and affirmation. Thus, the context in which emphatic *so* is one where the speaker wishes to deny a denial, as in the following interaction:

- (18) A: Peter left early
B: Peter didn't leave early
C: Peter did *so* leave early

Where A, B and C stand for different speakers. The complementary distribution between *neg*, *aff* and *so* is again straightforwardly accounted for under the assumption that they head the same syntactic projection:

- (19) a. *The writers did *so* believe the boy
b. *The writers didn't *so* believe the boy

Also in Basque, there is one more candidate for the category Σ , which also involves emphatic affirmation of the event: the particle *ba*⁴. Ortiz de Urbina (1989) has already pointed

⁴ As noted by many traditional grammarians, this particle is in fact a contracted *bai* 'yes'. It is also possible to use the complete form *bai* instead of *ba*:

- (i) Jon baida etorri
Jon yes-has arrived
'Jon has *so* arrived'

out a number of similarities between the negative particle **ez** and this affirmative element **ba**, suggesting that the later may be subject to a treatment along the lines of negation. Indeed, I will argue that the syntactic similarities derive from the fact that both belong in the same category Σ . Emphatic **ba** induces the leftwards movement of the auxiliary, like **neg** and **aff** do:

- (20) a. Jon **ez** da etorri
Jon not has arrived
‘Jon hasn’t arrived’
b. Jon **ba** da etorri
Jon so has arrived
‘Jon has so arrived’

Similarly to English **so**, the contexts in which the use of this particle is felicitous involves the denial of a denial, that is, a context like the one in (18). The particle **ba** is described as an affirmative marker in the Grammar edited by the Academy of the Basque Language (Euskaltzaindia), in opposition to the negative morpheme:

The first set of elements that are placed next to the inflected verb is constituted by those that have to do with the **truth value** that the speaker attaches to the utterance, in particular the particles **ba** and **ez**.

[Adizki jokatuaren aldamenenan kokatzen diren elementuen lehen saila hiztunak bere esanari egozten dion **egibalioarekin** zerikusia dutenek osatzen dute, “**ba-**” eta “**ez**” partikulek, hain zuzen ere.]

(Euskaltzaindia 1987:488).

Both **ba** 'so' and **ez** 'not' are in complementary distribution; we have already argued that the empty **aff** cannot cooccur with **neg** neither in Basque or English. Given the fact that the only phonological content of [**aff**] is stress, arguments for complementary distribution must be indirect, like the one presented above.

There is evidence in Basque showing that **aff** and **ba** are also in complementary distribution. Consider the sentences in (21):

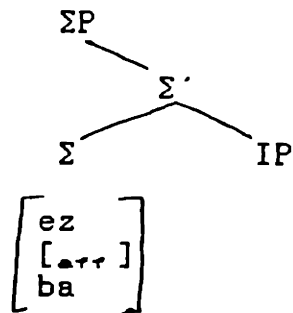
(21) a. Irune [**aff**]da etorri
 Irune [**aff**]has arrived

b. Irune bada etorri
 Irune so-has arrived

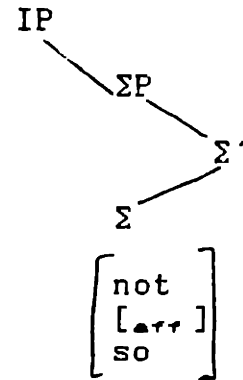
There is a difference in interpretation between (21a) and (21b). In the case of the empty **aff** morpheme, the emphatic affirmation is placed on the element in the specifier of ΣP , whereas in the case of **ba**, the emphatic affirmation remains on the inflected verb. If it were possible to have both [**aff**] and **ba** in a single sentence, the output would be something like 'MARY did read the book'. However, as noted in the Grammar of Euskaltzaindia (1987), the use of the

particle **ba** precludes focalization of the preceding element. Under our proposal, this fact has a simple explanation: **[aff]**, **ba** and **neg** cannot coocur because they belong in the same category:

(22) a. Basque



English



The picture that arises from the discussion of both Basque and English is hence that Σ has a very sharply determined semantic nature: The type of elements that constitute the category Σ all relate to the truth value of the sentence: they either reverse the truth value (**neg**), or they affirm it (**aff**), or they deny that it is false (**'so'**, **'ba'**).

Alternatively, we could characterize the nature of Σ in terms of the speaker's presuppositions: **Neg** cancels an affirmative presupposition, **Aff** cancels a negative presupposition, and **so/ba** cancels the cancelation of an affirmative presupposition.

2.6. NEGATIVE FRONTING IN ROMANCE.

The phenomenon I want to consider now is illustrated in (23):

- | | |
|--|---|
| (23) a. no vino nadie
not came anybody

'Nobody came' | c. *vino nadie
came anybody

('nobody came') |
| b. nadie vino
nobody came

'Nobody came' | d. nadie no vino
nobody not came

'nobody didn't come' |

The paradigm in (23) illustrates a very well-known phenomenon in Romance, which is not restricted to Spanish, from where the examples are taken; this phenomenon is present also in Standard Italian, Catalan, Portuguese, and many other Romance dialects.

What is puzzling about the paradigm in (23) is that the constituent *nadie* seems to behave as if it had a double nature: in half of the cases (23a) and (23c), it behaves like a standard polarity item (Cf. 'anybody'), in that it needs negation to be licensed. In the other half of the cases, however, it behaves like a universal negative quantifier (Cf. 'nobody'), carrying a negative meaning of its own.

There is a whole set of elements that behave in this fashion: *nadie* 'anybody', *nada*, 'anything', 'at all', *ningún* 'any', *nunca* 'ever', *ni* 'either'... Given that most of them begin with 'n-', I will refer to this set of elements as n-words⁷.

The paradoxical behavior illustrated in (23) has led some authors to postulate the existence of two series of n-words: On the one hand, there would be a *nadie*₁ which would be the equivalent of English 'anyone', a polarity item with existential import that must be licensed by some other element. On the other hand, the lexicon of these Romance languages would have a second item, phonologically identical but quite different in its meaning and syntactic behavior. This item, let us call it *nadie*₂, would be a universal negative quantifier like the English 'nobody'.

Under this view, the question to be answered when faced with the paradigm in (23) is how to determine the correct distribution of these two different lexical items. Put it

⁷ Not all of them do, however. There set of elements that behave like *nadie* in (15) also include *apenas* 'hardly', *en modo alguno* 'in any way' and *en la vida* 'in my life', as noted in Bosque (1980). It should also be noted that *nada* 'anything' and *nadie* 'anyone' do not originate from negative words, but from positive ones. Thus, *nada* has its origin in Latin *res nata* 'born thing', a phrase of very frequent use that eventually became a Polarity Item; similarly, *nadie* originates in *(homines) nati* 'born (men)' (Cf. Corominas (19XX)).

differently, the task of the person acquiring the language is to figure out when to use each of the items. This task is by no means trivial in the case of Romance. For example, *nadie*₂ is not allowed to occur in certain environments where its English equivalent is perfectly comfortable, as shown in (24):

- (24) a. I ate nothing
 b. *Comi nada

The double-*nadie* hypothesis has been defended by Longobardi (1986) and Zannuttini (1989) in rather different analyses.

Here, I will defend the view that there is a single set of n-words, and that they are Negative Polarity items, that is, existential quantifiers. Before proceeding with the analysis, I will discuss the arguments put forward by the different defenders of the double-*nadie* hypothesis, in order to establish the nature of the n-words.

2.6.1. On the Nature of N-words.

Zannuttini (1989) argues that there are two types of n-words: The first type occurs in interrogative environments, and it is an existential quantifier, equivalent to English Negative Polarity items ('anybody'). The second type occurs

in declarative environments and it is a universal negative quantifier, equivalent to English 'nobody'.

Hence, cases of n-words in question or conditionals, where the items are equivalent to English Polarities, are instances of the first type of n-words. (25) illustrates some examples:

(25) a. Ha telefonato nessuno

'Has anybody phoned?'

b. Voleva sapere se nessuno ha telefonato

'She wanted to know whether anybody had phoned'

(from Zannuttini (1989))

On the other hand, examples like those in (23), where the environment is declarative, are taken to be instances of the second type of n-word, that is, the universal negative one. Thus, what Zannuttini claims is that there is a correlation between interrogative environments and existential n-words in one hand, and declarative environments and universal negative n-words in the other. This is schematized in (26):

(26) interrogative _____ existential n-word
('anybody')

declarative _____ universal negative
n-word ('nobody')

The problems with this partition is that the wrong kind of n-word can occur in the wrong kind of environment. Thus, it is possible to have n-words with a universal negative meaning in questions, and it is possible to have n-words with an existential import in non-interrogative environments.

The first case is illustrated in (27)^a.

(27)

a. Me preguntaron si nadie sabía la respuesta

'They asked me whether nobody knew the answer'

b. quién derribó el nunca terminado puente de la Magdalena

'Who demolished the never finished bridge of Magdalena?'

According to Zannuttini's partition, the *nadie* and *nunca* present in (27a) and (27b) respectively, should be of the existential kind. However, as can be deduced from the glosses, the meaning of these two items in each of the examples is not existential, but universal negative. That is, they do not translate as English 'anybody' or 'ever', but rather, as English 'nobody' and 'never'.

^a Actually, (27a) is ambiguous. The preverbal n-word can be interpreted as 'anybody' or 'nobody'. This ambiguity is explained in chapter 3. Note that for the purposes of this argument, it is enough that (27a) can have an interpretation like the one given in the translation.

It is also possible to have existential n-words in non-interrogative environments. Consider (28):

(28) Pedro duda que venga nadie

'Peter doubts that anybody will come'

The embedded clause contains a n-word, which nevertheless is not a universal negative, but an existential quantifier. That is, it is not equivalent to English 'nobody', but to English 'anybody'.

Given this evidence, we can conclude that even if there were two sets of n-words, it would not be possible to distinguish them in terms of interrogative versus declarative contexts.

The data presented so far indicates that n-words behave like Negative Polarity items in all environments except in one: only when they occur preverbally do they seem to behave like Universal Negative Quantifiers. In fact, these items are licensed in all environments where English Negative Polarity items are licensed: questions (25a), (27a,b), conditionals (25b), and negative environments (23a,c), (28). They are also licensed in comparatives, as shown in (29):

(29) María canta mejor que ninguno de vosotros
'Mary sings better than any of you'

And in all other predicates that typically involve Polarity licensors, as discussed at length in Bosque (1980). Some further examples are given in (30) (from Bosque (1980):

(30) a. Antonio estaba en contra de ir a ninguna parte
'Anthony was against going anywhere'

b. Perdimos la esperanza de encontrar ninguna salida
'We lost hope of finding any way out'

We also find n-words inside DPs headed by a universal quantifier, a domain in which NPIs are licensed in English (Ladusaw (1980)):

(31) En esta reunión, todo aquel que tenga nada que decir
tendrá ocasión de hablar
'In this meeting, everyone who has anything to say
will have a chance to talk'

Zannuttini (1989) claims that the behavior of postverbal n-words in negative sentences is that of a universal negative quantifiers. The central test presented in support of this claim is the following: it is argued that Polarity items

cannot be modified by quasi 'almost', whereas negative quantifiers can. The contrast is illustrated in (32) (from Zannuttini (1989)):

(32) a. *Quasi nessuno ha telefonato*

'Almost nobody has called'

b. *Non ha telefonato quasi nessuno*

'Almost nobody called'

c. **Ha telefonato quasi nessuno?*

('Has almost anybody called?')

The point of the paradigm is to show that, whereas the *nessuno* in the interrogative (32c) cannot be modified by almost, both *nessunos* in the negative sentences can (32a), (32b).

However, the validity of this test becomes less clear when we consider Polarity items licensed by negation. Thus, if we take cases with uncontroversial Polarity items in other languages, the results of this test are not the ones expected. Consider for example English and Basque. Similarly to the Italian example in (32c), it is true that Polarity items licensed in interrogative environments yield ungrammatical results, as shown in (33):

(33) a. *Ikusi duzu ea inor?
 seen have-you almost anybody

b. *Have you seen almost anybody?

When the licenser is negation, however, the results of modifying the NPI with almost improve considerably, and the sentences are at most marginal. In fact, for most speakers, in these negative environments the Polarity items can be modified by almost without inducing ungrammaticality, as (34) illustrates:

(34) a. Ez dut ea inor ikusi
 neg-have-I almost anybody seen

b. I haven't seen almost anybody

Given these results, the fact that (32b) is well formed does not prove that it is a universal quantifier. What it shows is that, when licensed by negation, the behavior of Polarity items is different that when the licenser is some other element.

Further evidence in support of the claim that n-word items are Negative Polarity Items is found when we examine their behavior after the preposition *sin* 'without'. In English, Negative Polarities are licensed when they occur within PPs headed *bi* without (35):

(35) a. I have left without any money

b. Without anything to eat, the prisioners
 starved to death

On the other hand, negative quantifiers inside PPs headed by without induce a double-negation reading¹⁰(36):

- (36) a. I wanted to leave with nobody noticing, but I had
to leave without nobody noticing

The behavior of n-words in this environment is parallel to NPIs, and unlike universal negatives, as illustrated in¹⁰
(37):

? The example presents the usual difficulty displayed by cases of double negation, but it factors out as 'with somebody noticing' after some effort.

¹⁰Zannuttini (1989) notes this fact in Italian and claims that *senza* 'without' is not subject to the negative chain algorithm at play in Romance, whereby the semantic interpretation of several universal negatives 'factors out' the negative force of all negatives dominated by the one c-commanding IP, interpreting only their quantificational force. This preposition always starts a new negative chain. There are two problems with the 'negative chain' mechanism. The first one is that it predicts that a sentence like (i) should be a case of double negation, like (ii) is, given that there are two negative elements c-commanding IP:

- (i) *nunca nadie me ha tratado así*
'Nobody has ever treated me like that'

- (ii) *nadie no ha venido*
'Nobody hasn't arrived'

Under Zannuttini's approach, sentence negation in these languages is c-commanding IP already at D-Structure. Both sentences are predicted to be cases of double negation, but only one of them is.

The second problem is that (iii) is predicted to be grammatical, since the negative *sin* is c-commanding IP, and should thus create a negative chain that includes the postverbal *nada*:

- (iii) **sin dinero he comprado nada*
(Without money have I bought anything')

(37)

a. He salido sin dinero

'I have left without money'

b. Sin nada que comer, los prisioneros murieron de hambre

'Without anything to eat, the prisoners died of hunger'

Moreover, the behavior of n-words in this context is identical to all other NPIs in Spanish, even those that are not allowed in preverbal position, like *un real* 'a red cent'. Thus, this NPI can occur postverbally in a negative sentence, but it cannot be placed preverbally without negation, as shown in (38)¹¹:

(38) a. No tengo un real

'I don't have a red cent'

b. *Un real tengo

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

These NPIs are licensed when they occur as complements of *sin* 'without':

(39) a. He salido sin un real

'I left without a penny'

¹¹ The only available reading for (28b) is 'I have a cent', where it is no longer a NPI.

Therefore, it cannot be argued that the semantic properties of *sin* in Romance are different from the properties of germanic without, in that only the later allows NPIs as its complements. Both prepositions are licensors of NPIs, and *n*-words behave like NPIs when c-commanded by it.

I will therefore conclude that there is only one set of *n*-words in the lexicon of Spanish, Catalan, Italian and Portuguese, and that these items are indeed Polarity items (and therefore existential quantifiers).

Hence, there is no special task that the language learner has to complete in figuring out the distribution of the *n*-words. Their distribution is the same as other Polarity items in languages like English and Basque, and it doesn't involve any language particular strategy, but it conforms to whatever the universal requirements are on Polarity licensing: the set of possible licensors and the conditions under which licensing is obtained ((Ladusaw (1980), Linebarger (1987))).

2.6.2. On the Preverbal Position of *nadie* words.

After having concluded that *n*-words are Polarity items, the task now is to account for the case in which these elements behave like negative quantifiers. The environment in which

n-words do not conform to the standard behavior of Polarity items is the one illustrated in (23b,c), repeated here as (40a, b):

(40) a. *nadie ha venido*
 'nobody has arrived'

 b. *nadie no ha venido*
 'nobody hasn't arrived'

In (40a), n-word does not appear to be licensed at all, given the absence of any overt negative marker. In (40b), the negative marker is present, but it induces double negation; the sentence then means that 'everybody has arrived' ¹².

The question to be addressed in what follows is what the position of n-word is in (40a) and (40b). I will argue that

¹² It must be pointed out that whereas this is true for Spanish, Italian and Portuguese, it is not so for Catalan. The equivalents of (15a) and (15b) in standard Catalan are synonymous:

(i) *ningú ha arribat*
 'nobody has arrived'

(ii) *ningú no ha arribat*
 'nobody has arrived'

where the first choice is more common in spoken language (Lleó (1978)).

this position is not the Specifier of IP, but rather the specifier of a ΣP , generated above IP.

As discussed at the beginning of this section, there is a whole set of lexical items that share the same properties that n-word has. Some of them are illustrated in (41):

- | | |
|--------------------------|----------------------------|
| (41)a. María nunca viene | e. nada quiere María |
| 'Mary never comes' | 'nothing loves Mary' |
| b. María no viene nunca | f. No quiere nada María |
| Mary doesn't come ever | Mary doesn't want anything |
| c. *María viene nunca | g. *Quiere nada María |
| (Mary comes ever) | (Mary wants anything) |
| d. María nunca no viene | h. Nada no quiere María |
| Mary never doesn't come | nothing doesn't want Mary |

The examples in (41) show that the preverbal quantifier need not be the subject of the sentence. The first column illustrates cases where the preposed element is an adjunct. The second column illustrates cases where the preposed element is the direct object. One of the series has preverbal subjects and the other one has postverbal

subjects, and both orders of the subjects are possible ¹³.

Although the phenomenon at stake is not restricted to a particular syntactic category, and thus any argument or adjunct of the n-word set can occur preverbally, the position is very restrictive with respect to the number of elements that can precede the inflected verb, and with respect to the intonation attached to them.

As noted by Bosque (1980), only one n-word is allowed to occur preverbally¹⁴:

¹³ For a more detailed list of all elements that belong in this class see Lleó (1978) for Catalan and Bosque (1980) for Spanish.

¹⁴ There is one instance where all speakers agree that two *nadie* words can precede the inflected verb. This case involves the elements *nadie* 'anybody' and *nunca* 'ever':

- (i) *Nunca nadie afirmó tal cosa*
'Never did anybody assert such a thing'
- (ii) *Nadie nunca afirmó tal cosa*
'Nobody ever asserted such a thing'

These facts hold also for Italian, as noted by Zannuttini (1989):

- (iii) *Mai nessuno mi aveva parlato così*
'Never had anyone talked to me like that'
- (iv) *Nessuno mai me aveva parlato così*
'Nobody had ever talked to me like that'

The fact that it is only the combination of these two items that makes possible the occurrence of two elements before the inflected verbs suggests that some kind of absorption (Lasnik & Saito 1984) is taking place in these cases.

(42) a. *Nadie en ningun lugar juega

('Nobody plays in any place')

b. *Nadie a nadie le dio dinero

('Nobody gave money to anybody')

c. *A nadie nadie le hace caso

('To nobody does anybody pay attention')

This restriction suggests that preverbal n-words are occupying a unique position, which is available only to one constituent¹⁵. Typically, positions displaying this kind of properties are Specifiers. Let us consider the two

¹⁵My judgements agree with those in Bosque (1980) as to the number of n-constituents that can occur preverbally, and thus I don't accept sentences with more than one n-constituent preceding the verb, with the only exception mentioned in the previous footnote. However, I have found speakers whose judgements vary with respect to sentences that involve more than one *nadie* word preceding the verb. I haven't found a consistent characterization of what the restrictions on these cases are, and different speakers vary on this too, being more or less restrictive in the number and/or nature of the preposed n-constituents. Nevertheless, even in the most liberal cases, the entire string of n-constituents preceding the verb must be contained in a single intonational phrase, with no break and emphatic stress.

- (i) a ningún hijo mío nadie le trata así
'Nobody treats any son of mine like that'
(ii) *a ningún hijo mío, nadie le trata así

This would seem to indicate that the entire string is behaving as a single constituent in the syntax, much in the fashion of what have been referred to as 'quantifier absorption' processes in Lasnik & Saito (1984).

candidates that immediately come to mind: Specifier of IP and Specifier of CP.

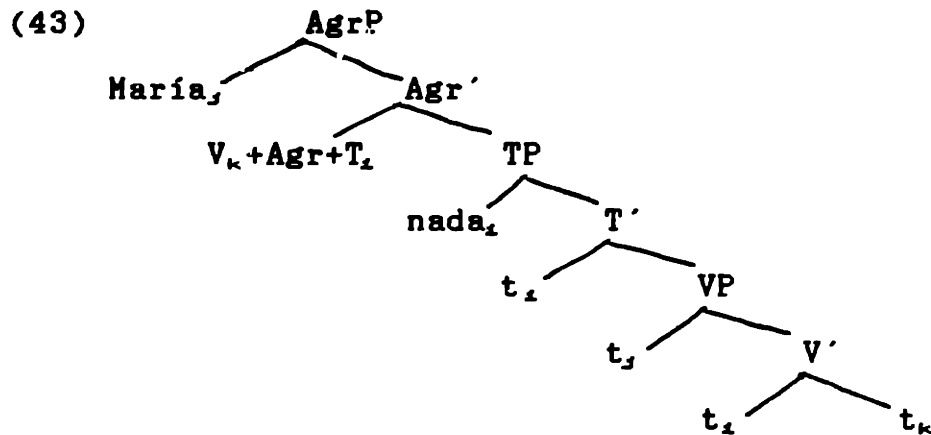
Let us consider [Spec, IP]. The position occupied by the n-word in front of Infl is different from the subject position in a number of ways:

Unlike arguments sitting in the Spec of IP, n-words need not agree with Inflection, as shown in (26a), and (26e). Under a view of agreement that restricts it to a SPEC-Head relation (Fukui & Speas (1986)), if the preposed n-word were sitting in [SPEC,IP] we would expect either that it would agree with Infl, or that the subject would not.

Even under the view of Infl put forward by Pollock (1989), where this category splits into two different projections Tense Phrase and Agreement Phrase, the agreement facts are not automatically rendered irrelevant. Let us consider the possibilities:

Let us consider first a Phrase Structure like the one proposed by Chomsky (1989), where AgrP dominates TP, the possibility that the preposed element be sitting in the highest SPEC in the Inflectional system is automatically ruled out, given the lack of agreement between the preposed constituent and Infl. The n-word could not be sitting in

[SPEC,TP] either, since this position would not be preverbal after head movement raises Tense to Agr, as shown in (43):



Let us consider a Phrase Structure like the one proposed in Pollock (1989), where TP is generated above AgrP, and let us assume that subject agreement is realized by movement of the argument to [SPEC,AGRP], as proposed by Mahajan (1989) for Hindi. Under this hypothesis, [SPEC,TP] is still available for movement. If we assume that in declarative sentences the subject moves there in order to satisfy the Extended Projection Principle (Mahajan (1989)), then we leave the possibility open for a constituent other than the subject to move to [SPEC,TP] in order to satisfy that Principle, similarly to the way in which the Ergative subject moves to [SPEC, TP] in Hindi, whereas the argument showing agreement sits in [SPEC,AgrP] (Mahajan (1990)).

Adverb placement suggests however that this hypothesis is

not the correct one. If subjects and preposed n-words were sitting in the same Specifier, we would expect that elements that intervene between the subject and the inflected verb should be able to intervene between the preposed n-word and the inflected verb. This prediction is not borne out. For instance, adverb placement distinguishes the preposed n-word from a standard subject. Thus, adverbs that occur comfortably between the subject and the inflected verb are not possible between the preposed n-word and the inflected verb, as shown in (44):

- (44) a. María frecuentemente canta en la ducha
 Mary often sings in the shower
- b. *nadie frecuentemente canta en la ducha
 nobody often sings in the shower
- c. Nadie canta frecuentemente en la ducha
 nobody sings often in the shower

(44a) shows the adverb frecuentemente intervening between the subject María and the inflected verb. In (44b), we see that this is not possible when we have a preverbal n-word. There is no semantic incompatibility between n-word and the adverb, as shown in (44c), where both appear and the sentence is grammatical. However, the adverb must occur after the

preverbal n-word and the inflected verb. Assuming the adverb is in the same position both in (44a) and (44b), it must be the case that n-word is placed in a position higher than Spec of IP, and that the inflected verb has moved upwards too. Therefore, we can conclude that the fronted n-word is not sitting in the Spec of IP/TP.

The next possibility to consider is that n-words occur in [SPEC,CP]. This cannot be the case either, because fronted n-word words can always occur after overt complementizers, as in (45)¹⁴:

- (45) a. creo [_{CP} que [nadie ha venido]]
 think-I that nobody has come
 'I think that nobody came'
- b. la mujer [_{CP} que [nunca canta]]
 'the woman that never sings'

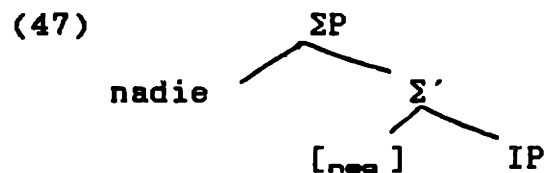
¹⁴ We could assume that CP is a recursive projection, following an idea put forward by Chomsky (Class lectures (1989)). However, this would leave unexplained why it is that the complementizer cannot follow the preposed word, that is, why is it the recursive CPs are 'ordered'. Moreover, we would have to account for the fact that whereas embedded CPs like *que* do not trigger I-to-C movement, embedded CPs like the one supporting *nadie* always do, as shown in (i):

- (i) a. Creo que Juan canta siempre
 'I think that Juan always sings'
- b. *Creo que nunca Juan canta
 ('I think never that Juan sings')

The evidence presented so far indicates that the position at stake is higher than [Spec,IP], but lower than [Spec, CP]. I will argue that n-words move to the Spec of Σ P, and that this Σ P is generated above IP in Spanish. Thus, when they occur preverbally, it is to the Specifier of the Σ Phrase that n-words move to when preposed, as illustrated in (46):

(46) [~~n~~ nadie [_n canta frecuentemente en la ducha]]

The Σ P is headed by a phonologically empty negative morpheme, which licenses the polarity item via a Spec-head agreement relation:



2.6.3. Sources: Bosque's (1980) proposal.

The idea that preverbal n-words involve some non-overt negative morpheme is not a new one. To my knowledge, it was first proposed by Bosque (1980), in his extensive and insightful work about negation in Spanish. The analysis presented here is in fact similar to Bosque's in various respects.

Bosque (1980) also assumes that n-word words are always Polarity items that need an affective licenser. In the preverbal instances, argues Bosque, sentence negation *no* 'not' incorporates onto the n-word word (in the spirit of Klima (1984)), thus yielding the negative meaning.

Bosque also assumes the old version of the VP internal hypothesis (McCawley (1970), Hudson (1973)), and claims that the underlying word order in Spanish is VSO. From this underlying order, a transformational operation places one constituent in front of the verb.

Thus, preverbal subjects, questions and preverbal n-word elements are all handled in identical fashion¹⁷. In the case of preverbal n-word words, the input for the rule is a sentence like:

(48) *no tiene nadie hambre*
'nobody is hungry'

To this sentence, a transformational rule applies, which Chomsky-adjoins the n-word word to the initial position:

¹⁷ Pesetsky (1989) has independently put forward a nearly identical proposal, which reduces Wh-movement and preverbal subjects to movement to the Specifier of IP.

(48) Nadie preposing (Bosque (1980))

X-NEG [_{NP} V-Y-POLARITY-W] -Z

1 2 3 4 5 6 7

1 5+2 3 4 Ø 6 7

This transformational rule is followed by Neg-deletion, which erases the negative marker *no*¹⁶.

The claim made here is that the relation of agreement that holds between the empty head [_{NP}] and the polarity items sitting in the Specifier position licenses the n-word word¹⁷.

2.6.4 Negative Fronting and Emphatic Fronting.

In the discussion of the properties of the category Σ in the particular case of English and Basque, it was established that there is a tight connection between negation and

¹⁶ Rizzi (1982) also assumes a similar account for n-words in Italian, by means of incorporation of negation onto the preverbal n-word.

¹⁷ If a relation of agreement enables a licenser to license a polarity item, as claimed here, then the condition on Polarity item licensing starts looking more like government than strict c-command. Notice that allowing the licensing conditions to include SPEC-Head relations does not predict 'anybody didn't leave' to be grammatical, because the Polarity item is sitting in the SPEC of Infl or Tense, not in the SPEC of NEGP.

emphatic affirmation. I have argued that n-word preposing in Romance involves the projection Σ P. Specifically, I have argued that certain Romance languages generate a Σ P above IP, much in the way Basque does. This Σ P is headed by an empty negative morpheme that licenses the NPI sitting in its Specifier by means of a SPEC-Head relation. In turn, the negative head and its projection can only be licensed in the presence of an over n-word element in its Specifier.

I will now provide evidence that this Σ P projection can also be headed by an empty affirmative morpheme, which similarly to the negative one also requires an overt element in the Specifier of its projection in order to be licensed.

Contreras (1976), in his extensive study of word order in Spanish, notes Spanish tends to place the rhematic constituent of the sentence in postverbal position:

- (50) Pedro viene MAÑANA
'Peter arrives TOMORROW'

Contreras calls this the **typical rhematic order**. However, he also points out that in addition to this strategy, 'there is an emphatic order, which is the reverse of the normal order'. In this later case, the rhematic constituent is placed immediately before the inflected verb, as in (51):

(51) MANANA viene Pedro

'Peter arrives TOMORROW'

I will follow Contreras in assuming that the emphatic order in (51) is the consequence of a transformation²⁰; more specifically, I will claim that the preverbal emphatic constituent in (51) has undergone move α from its D-structure position to the specifier of ΣP .

The idea that this type of emphatic construction involves movement to a presentential position has already been put forward by Torrego (1984). The following example is taken from her (the postulated S-structure representation is not):

²⁰ Contreras (1976) calls this transformation THEME POSTPOSING, and defines it as an optional rule. The operation postposes all thematic constituents, leaving the rhematic one at the beginning of the string. There is a condition added to the rule: THEME POSTPOSING is applicable only if the sentence is an assertion. Given that this rule postposes all thematic constituents, there is no way to ensure that the inflected verb immediately follow the rhematic element. In order to achieve this result, Contreras must add one more rule that places the predicate immediately after the rhematic constituent. However, since it is also ungrammatical to have any thematic element preceding the predicate, and given that the rule of theme postposing is optional, a further condition is required which makes it obligatory to postpone all thematic arguments. As Contreras himself notes, though this condition would prohibit left dislocated thematic constituents, which are allowed to precede the rheme.

(52) [~~Un~~ Un viaje a las Canarias [~~hizo~~ [~~Antonio~~ este verano]]

'A trip to the Canary Islands Anthony made last summer'

Notice that this fronting differs from another type of fronting available in Romance, which is usually referred to as 'left dislocation'. Contrary to left dislocation cases, this fronting to ΣP does not allow clitic doubling:

(53) a. este vestido compraría yo si tuviera dinero
this dress buy would I if I had money

✓ 'I would buy this dress if I had money'

b. *este vestido lo compraría yo si tuviera dinero
('I would buy this dress If I had money')

c. este vestido, yo lo compraría si tuviera dinero

This preverbal focus position is also discussed by Bonet (1989). Bonet notes only one constituent is allowed in this position. The following are some of her examples:

(54) a. LES SABATES ha ficat a l'armari en Pere
'Pere has put THE SHOES in the closet'

b. A L'ARMARI ha ficat les sabates en Pere
'Pere has put the shoes IN THE CLOSET'

This preverbal focus position, like in Spanish, induces a verb-second effect:

- (55) a. *Un viaje a las canarias Pedro hizo este verano
b. *Les sabates en Pere ha ficat a l'armari

And also in Catalan, this emphatic fronting is distinct from left dislocation: Whereas left dislocation leaves a clitic behind (when the clitic is available), this fronting does not allow cliticization:

- (56) a. *LES SABATES les ha ficat a l'armari en Pere
b. *A L'ARMARI hi ha ficat les sabates en Pere

2.7. SAYING 'YES' AND 'NO'.

Given that the semantic values of the elements in the category Σ we have so far found involve affirmation and denial, it seems natural to look into the relation of the syntactic projection ΣP on the one hand, and affirmative or negative replies to yes/no questions on the other.

I will argue that ΣP is involved in affirmative and negative replies to yes/no questions. The evidence I present in support of these claims is drawn from the three languages that are the main object of study in this work: Basque, English and Spanish.

To my knowledge, the syntax of yes/no answers has not been studied as a consistent topic within the generative syntax literature. It is often claimed in fact that there is little or nothing to be found out from such an inquiry, and that only semantics or pragmatics can find anything of interest

to say about them²¹.

In this section I would like to challenge this view, and show that there ~~is~~ something to say about answers from the syntactic point of view: there are grammatical and ungrammatical answers, and there is also parametric variation as to what a grammatical answer is.

First, I will examine the situation in Basque. It will be shown that relating affirmative replies to the ΣP phrase provides not only an elegant account of the most obvious facts regarding yes/no answers, but it is also the key to a puzzling problem that has so far resisted explanation, regarding sentences whose first overt element is an inflected verb.

Second, I will consider some aspects of the structure of yes/no answers in English, and discuss the meaning of yes

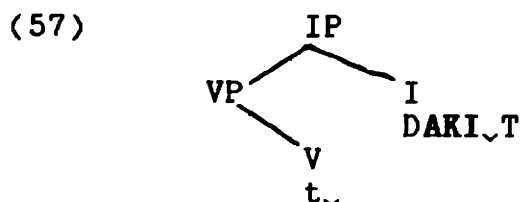
²¹. The issue of whether there is anything that syntax can contribute to in the study of answers doesn't even arise in most discussions I am familiar with (with the exception of Pope (1972)). For instance: 'With what I have said I do not want to suggest that the semantics of questions and answers is less important than the inquiry into their pragmatic aspects. In fact, pragmatic presupposes semantics. A proper semantic account of questions and answers is a prerequisite for a proper pragmatic account.' (Kiefer 1983:6) Note that it must also be the case that pragmatic presupposes syntax, and that a proper syntactic account of questions and answers is also a prerequisite for a proper pragmatic account.

and no, their syntactic nature, and the differences between yes/no on the one hand and [ae]/not on the other. I will also present differences between English, Spanish and Basque regarding yes/no answers, and provide an account.

Finally, I will consider the case of Spanish. I will discuss the syntax of *sí* and *no* in relation to Σ P, and I will argue that other elements like *sí que* and *ya* also belong in this category.

2.7.1. Answering in Basque.

Under the assumption that direct answers to yes/no question always involve movement of Inflection to the head Σ , the behavior of inflected verbs in these environments is accounted for straightforwardly in Basque. Recall once again that inflected verbs are those where there has been movement of V to Infl, as in (57):



When the reply to a yes/no question involves an inflected verb, it must have the particle *ba* (yes) attached if the

answer is affirmative, or the particle *ez* (no) if the answer is negative, as the examples in (58) illustrate:

- (58) a. (Bai,) *badakit*
Yes yes-it-know-I
'(Yes), I do know it'
- b. (Ez,) *ez dakit*
No not-it-know-I
'(No,) I don't know it'

(58a) illustrates an affirmative answer: The uncontracted word *bai* 'yes' is optionally present, and separated by a pause from the inflected verb²². The verb has the particle *ba* attached to it. (58b) illustrates a negative answer: parallel to the affirmative case, there is a negative word *ez*, 'no', optionally present, and after a pause, the inflected verb with the negative particle attached.

An answer without *ba* or *ez* attached to the inflected verb yields sharp ungrammaticality. Thus, compare (58) to (59):

²² As mentioned in footnote 8 in this chapter, the particle *ba* is a contraction of the word *bai* 'yes'. It is possible to have a non-contracted form in slow and very emphatic speech, as in,

(i) *ba^hdakit!*
yes-it-know-I
'Yes I know it!'

Conversely, eastern dialects use the contracted form *ba* also for the word 'yes' in isolation, and never use the form *bai*:

(ii) *Ba, badakit*

(59) a.*Bai, dakit

b.*Ez, dakit

c. *dakit

Note that all the relevant information is present in the answers in (59): the presence of the words bai 'yes' and ez 'no' already tells us that the answer is affirmative or negative, and the inflected verb informs us of what it is that is affirmative or negative. However, (59a) and (59b) are sharply ungrammatical, and so is the attempt of giving an affirmative answer like (59c) where only the verb is present.

These data find a simple explanation under the Σ P hypothesis. Let us assume that in answering yes or no, the Σ P phrase is projected, headed by whichever value the answer has: affirmative (ba) or negative (ez)²³. Given the Tense C-Command Condition, Tense must be c-commanding the head of Σ at S-structure, and thus, in the case of Basque, it must raise to that projection (Recall that Σ P is generated above TP in this language). The S-structure representations of (58a) and (58b) are illustrated in (60):

²³. For a discussion of the status of the initial and optional bai and ez, see discussion below.

(80) a. Bai [~~ΣP~~ badakit [_{IP} δ]]

b. Ez [~~ΣP~~ ezdakit [_{IP} δ]]

Where δ indicates that IP is deleted (following the notation in Wasow (1972)). This deletion, however, is not obligatory, and the rest of the sentence can also be part of the answer. What is crucial is that representations like (81), where the inflected verb stays in situ, and ΣP is not generated, are not an option:

(81) a. *[_{IP} pro dakit [_{VP} δ]

b. *Bai, [_{IP} pro dakit [_{VP} δ]

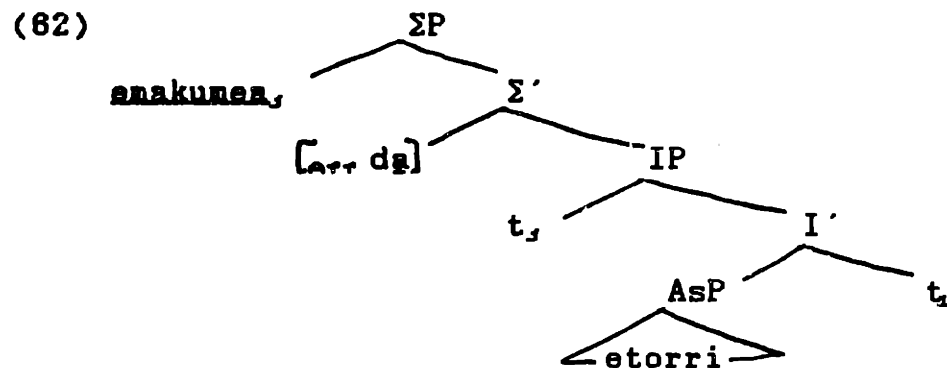
c. *Ez, [_{IP} pro dakit [_{VP} δ]

Even if no IP deletion takes place, an affirmative or negative answer that does not involve movement to ΣP yields ungrammaticality. Thus, if one were to ask 'Do you know English?', only a sentence with the particle ba or ez in attached to the inflected verb would constitute a grammatical answer.

Recall that there are three different elements that can head ΣP in Basque, as argued in section 2.4.1.: One element is negation ez, another one is ba, and the third one is the empty emphatic [_{PRO}]. We have just shown that both ba and ez

occur in affirmative and negative questions respectively, but nothing has been said so far about the third value of Σ : $[\text{arr}]$. Let us consider this case.

There is a basic property of $[\text{arr}]$ that distinguishes it from the other two values of Σ ba and ez . Whereas ba and ez do not require that the specifiers of their projections be filled by some element, $[\text{arr}]$ does require that its specifier be filled by some constituent at S-structure. This follows from the fact that the only phonological content of $[\text{arr}]$ is stress, since the heavy stress is placed in the element in the specifier of ΣP . Hence, as we saw at the beginning of this chapter cases where ΣP is headed by $[\text{arr}]$ always have some element in the specifier of that projection:



Thus, $[\text{arr}]$ cannot be heading the ΣP when it is the inflection that is affirmed, given that its emphatic value is transmitted to its specifier via agreement. Note that this property of empty $[\text{arr}]$ is not particular to Basque; this

allowed in Basque; and finally, (63c), where the subject has been dropped, is also ungrammatical.

That the ungrammaticality of the sentences above is not due to some restriction on pro-drop of subjects or some restriction on the verb etorri 'arrive' used in the example is shown by the following sentences in (64). They are all identical to (63) except for the fact that there is an adverb preceding the inflected verb:

- (64) a. berandu dator emakume hori
late arrives woman that
'That woman arrives late'
- b. emakume hori, berandu dator
woman that late arrives
'That woman, she arrives late'
- c. berandu dator
late arrives
'she arrives late'

What the examples in (64) show, when contrasted with (63), is that what makes the sentences in (63) ungrammatical is not the placement of the subject. Rather, it seems that what is wrong about the paradigm in (63) is the fact that the first phonologically overt element within IP is the inflected verb. In fact, it is the case that Basque rules out matrix sentences whose first overt element is an inflected verb or auxiliary.

A phonologically based approach to this phenomenon cannot provide a satisfactory answer, however, and this can be argued on the bases of two distinct pieces of evidence. The first one concerns the behavior of embedded clauses. As an example, I will consider relative clauses²⁴. Relative clauses in Basque precede the noun, as shown in (65):

(65) [t_i berandu datorren] emakunea, Irune da
 late arrives-that woman-the Irune is

'The woman that arrives late is Irune'

In this environment, a bare inflected verb with no *ba* or *ez* particle attached to it results in a grammatical sentence, as (66) illustrates:

(66) [t_i datorren] emakunea Irune da
 arrives-that woman-the Irune is

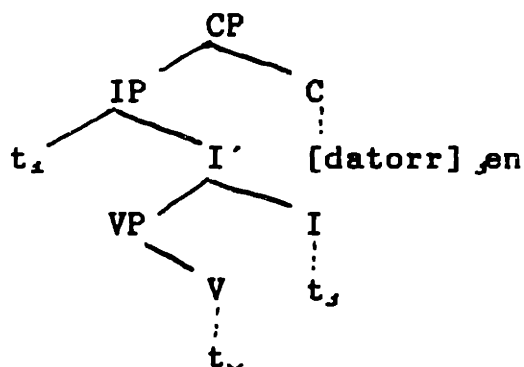
'The woman that arrives is Irune'

The inflected verb in (66) is in sentence initial position, both with respect to the embedded and the matrix clause. The

²⁴. The data I will present hold of relative clauses, indirect interrogatives, conditionals, and embedded clauses where presumably some operator-movement has taken place. They do not hold of embedded clauses that take the complementizer *-(e)la* 'that'. This latter type of clause also behaves like matrix clauses do with regard to other syntactic phenomena, like negation. In Laka (1989) I present a somewhat preliminary discussion on the nature of this complementizer, which deserves further consideration.

empty category preceeding it is now a trace instead of pro, and inflected verb has moved to C (Cf. Chapter 1), as illustrated in (67):

(67)



The fact that the prohibition against inflected-verb-initial sentences discriminates between different empty categories makes it very unlikely for it to be a restriction applying in the Phonetic Form component. On the contrary, I will argue that this is a syntactic restriction involving S-structure and Logical Form.

It is well known that word order variations in pro-drop languages are not semantically inert: different orders yield variations with respect to old and new information, what is known and what is new, the theme and the rheme of the sentence. Let me thus assume that, for any given sentence, there must always be a constituent that is interpreted as the rheme. The only exception would be a totally neutral sentences, were no pro-drop is involved and the arguments appear in their D-structure order. It seems uncontroversial

to claim that pro cannot be rhematized.

Now, if some constituent must be the rheme of the sentence, and if pro cannot be the rheme ever, it follows that in a sentence like (63a), repeated again here,

(63) a. *_{IR} [_{IR} pro_i dator] enakume hori_i]
 arrives woman that

(‘That woman arrives’)

either the inflected verb or the postverbal subject must be the rheme of the sentence. In southern Romance, postverbal subjects are focalized (Contreras (1976), Calabrese (1965), Bonet (1989)), as illustrated in (68) for Spanish and Catalan:

(68) a. viene Maria

 b. ve la Maria

 ‘Mary arrives’

However, this focalization strategy is not available in Basque. Even when heavily stressed, postverbal elements in declarative clauses cannot be interpreted as rhemes²⁸.

(69) *dator Mari

(‘Mary arrives’)

²⁸ I am using the words rheme and focus interchanegably.

The fact that this sentence is ungrammatical in Basque but grammatical in Southern Romance languages further supports the idea that constituents in these languages are not rhematized by attaching some kind of intonation to them, but rather, by placing them in some specific syntactic configuration, an idea that underlies much work done on focus in natural languages (Cf. Ortiz de Urbina (1989) and references therein)

All rhematic constituent in Basque must be preverbal (Altube (1929), Ortiz de Urbina (1989)), and there is no possibility of rhematizing a postverbal constituent, despite intonation or stress. Given this state of affairs, the only candidate for rheme in (63a) is the inflected verb itself. However, for the inflected verb to be the rheme of the sentence, it must be the case that it has moved to Σ , since it is in this category that the emphatic elements are generated, as discussed in previous sections. Furthermore, in a sentence like (63a) Σ could not be headed by [_{arr}], because this value of Σ requires an overt element in its specifier at S-structure, as discussed in the previous section. Thus, the only value of Σ that can rhematize inflection are *ba* (or *ez*), which are not present in (63a). Therefore, no element of (63a) can be a rheme, and the sentence is ill-formed.

In contrast with the paradigm in (63), the sentences in (70), where the inflected verb has moved to Σ , are grammatical:

- (70) a. badator emakume hori
 yes-arrives woman that
 ('That woman arrives')
- b. emakume hori, badator
 woman that yes-arrives
 'That woman, she arrives'
- c. badator
 yes-arrives
 'She arrives'

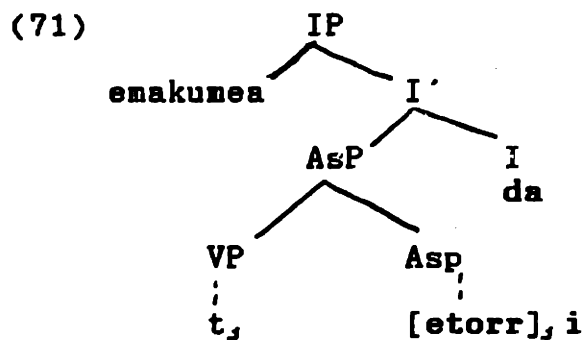
Thus, the prohibition against sentences whose first overt element is a bare inflected element is accounted for, under the assumption that Σ is the position where the emphatic elements are generated.

2.7.1.2. On Non-Synthetic Verbs: A Promisory Note.

Note that nothing has been said here about the behavior of non-synthetic or periphrastic verbs. These verbs present what appears to be a very different behavior. I will present the basic data and what I believe are the issues to be

addressed regarding this type of verb-inflection complexes, but by no means will this be a solution, since a complete answer must necessarily go into core issues of the Grammar of Basque whose discussion requires a deeper exploration than what I can offer here.

Recall that periphrastic verbs are those that present two separate elements: the lexical verb, inflected only for aspect, and the auxiliary verb, which carries all the inflectional morphology: agreement markers, tense, and modality. The structure of a periphrastic verb does not involve raising of V to Infl. Rather, there is raising of V to the head of AspP. This structure is illustrated in (71):

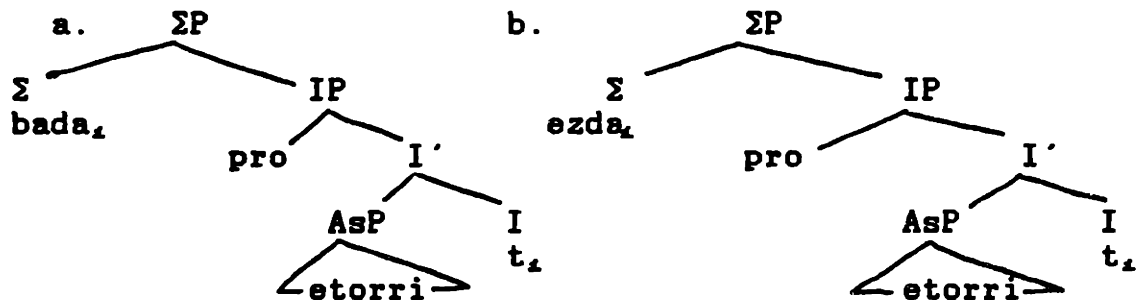


When replying to yes/no answers, the pattern found in periphrastic verbs partially correlates with the one already discussed in the previous section regarding synthetic verbs. Hence, the options we are by now familiar with are shown in (72):

- (72) a. (Bai,) bada etorri
 (yes) yes-has arrived
 'Yes, s/he has arrived'
- b. (Ez,) ez da etorri
 (No,) not-has arrived
 'No, s/he hasn't arrived'

The S-structure representations of (72a) and (72b) hence also involve Σ Ps headed by *ba* and *ez*, as is illustrated in (73):

(73)



However, there is one more option available in the case of an affirmative answer, which is not possible for synthetic verbs. This third option is presented in (74):

- (74) Bai, etorri da
 Yes, arrived has

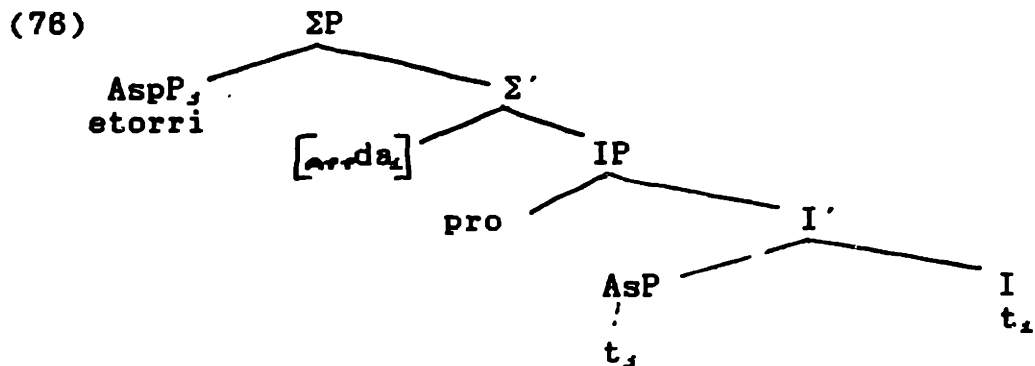
In correlation to this fact, it is also possible to have periphrastic verb sentence initially, an option that results in ungrammaticality in the case of synthetic verbs (recall section 4.5.1.1.). The complete paradigm, with synthetic and inflected forms, is given below:

- (75) a. *dator
- b. *da etorri
- c. etorri da

(75a), as discussed in 4.5.1.1., is ungrammatical. For the same reason, (75b) also yields ungrammaticality. Recall that what rules out (75a) and (75b) is the fact that inflection cannot be the rheme of the sentence unless it is moved to a Σ P headed by *ba* (or *ez*). In contrast with these cases, (75c) is a grammatical sentence. Crucially, the verb is rhematized, that is, it has an emphatic reading. Under our assumptions, this fact means that the verbal complex has moved to Σ P.

I want to claim that in sentences like (75c) the Σ P is involved, as expected. The crucial difference between synthetic and periphrastic verbs is that the latter have the

option of moving to a ΣP headed by the morpheme [$\sigma r d$]. What I will argue is that the S-structure representation of (75c) is (76):



In this S-structure representation, ΣP is headed by [$\sigma r d$]; hence, some overt maximal projection must occupy the specifier of sigma. This maximal projection is the Aspect Phrase, which receives the stress from [$\sigma r d$], thus being emphasized. In this respect, then, the difference between synthetic and periphrastic verbs is not a deep one, but a rather shallow one, involving the value [$\sigma r d$] of Σ .

2.7.2 Answering in English.

In English also, we find evidence for the claim that yes/no replies involve the category Σ . Affirmative and Negative

replies in English are illustrated in (77)²⁴:

- (77) a. (Yes) we did
b. (No) we didn't

Where ΣP is headed by [aff] in the first case and by Neg in the second one. Under the hypothesis that ΣP is involved in the representation of the sentences in (77), the ungrammaticality of the following answers is straightforwardly accounted for:

- (78) a. *we did yes
b. *we did no

²⁴In the case of affirmative replies, there exists also the option of using the declarative form of the sentence, as in (i):

(i) a. Yes I read it
However, this type of answer differs from the type in (11). Thus, for instance, there are two main restrictions that apply to this kind of answer. First, deletion is not allowed for any constituent:

- (ii) Q. Did you find that book on the desk?
a. Yes, I found it there
b. *Yes, I found it
c. *Yes, I found

Deletion is ruled out even in cases where the verb allows null object anaphora:

- (iii) Q. Did you eat cake?
a. *Yes I ate

Second, the presence of yes is mandatory, unlike in (11a):

- (iii) Q. Did you read that book?
*(Yes) I read it

Although I have no account for these two properties, they support the idea that non-emphatic declarative sentences are not direct answers like the ones in (11).

Consider (77a) again. It could be argued that this sentence involves VP deletion, given that the content of the VP is recoverable from the content of the question. Thus, the S-structure representation of (77a) would be as in (79), where no ΣP is involved:

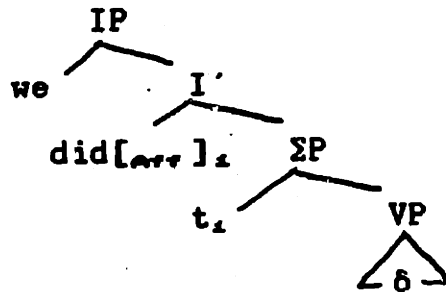
(79) (yes) [_{IP} we t_i [_{VP}did()]

(I assume that Tense/Infl has lowered to V, hence the trace in Infl) If the presence of dummy do in these cases were due to a 'VP-copy' process, we should expect the possibility of a parallel process in the case of a negative reply: the sentence initial *no* encodes the negativity of the sentence, and VP deletes leaving a dummy do as a copy. However, this strategy is not available. Hence, a negative answer like (80) is ungrammatical:

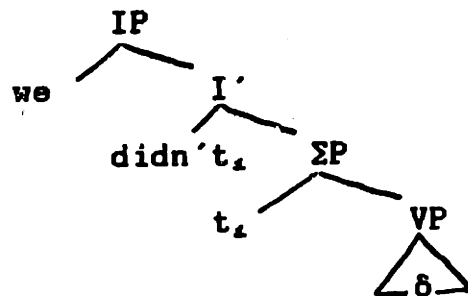
(80) *No [_{IP} we t_i [_{VP}did]

The results so far are parallel to those we found in Basque (Cf. examples in (59)). And, thus, we can conclude that the affirmative answers in (77) have a very definite S-structure representation; namely, the ones in (81a) and (81b):

(81) a.



b.



2.7.3 On the Meaning of **yes** and **no**.

Let us consider the elements **yes** and **no**. I will argue that they are not generated in ΣP, like [~~not~~], not, and so are. First, **yes** and **no** are not the ones at play in emphatic affirmation or negation of sentences, as seen in previous sections.

If we consider their semantic status, it is clear that, as noted in Kiefer (1983), their meaning cannot be 'it is the case that' for **yes**, or 'it is not the case' for **no**. Thus,

consider the examples in (82):

(82) Q. Do you sing?

A. No, we sing

Where (82A) cannot mean 'it is not the case that we sing'.

Similarly, in (83):

(83) Q. Doesn't Michael sing?

A. Yes, he doesn't sing

Where (83A) cannot mean 'it is the case that he doesn't sing'. The answers (82A) and (83A) are not devoid of meaning, however. Thus, (82A) is a fine reply to the question in (84):

(84) Q. Do you play piano?

A. No, we sing

And similarly, (83A) is a good answer in (85):

(85) Q. Is it true that Michael won't sing anymore?

A. Yes, he won't sing anymore

What these cases (from (82) to (85)) show is that the words **yes** and **no** do not affirm or negate the sentences that follow them, but, rather, they affirm or negate the affirmative

version of the question whose reply they are. Hence, in (82), the answer is wrong because no there means 'we don't sing', and then it is followed by 'we sing', resulting in a contradiction. Similarly, in (83), yes means that 'Michael sings', and the following sentence being 'He doesn't sing', it again results in contradiction. However, answers like the ones in (84) and (85) are good: (84A) is equivalent to 'we don't play piano, we sing', and (85) is equivalent to 'It is true; he won't sing anymore' ²⁷.

Further support for the claim that the meaning of yes and no is to confirm or deny the truth of the declarative version of the question is found in examples like the ones in (86) below.

Consider two questions that are identical except for the fact that one of them has negation in it and the other one does not. The yes and no answers for both questions have identical value:

(86) a. Is He home?

b. Isn't he home?

²⁷. Note that this sentence indicates that answers do not have access to embedded sentences, but only to matrix ones, which is a further indication of the relevance of syntax in answer formation.

Although question (86a) has a negative in it, and question (86b) does not, the answers do not seem to pay any attention to this fact. In both cases **yes** goes for 'he is home', and **no** goes for 'he is not home'. This is so because what **yes** and **no** are affirming or denying is the positive declarative version of the question: 'he is home'.

These facts also seem to indicate that in some sense, negative and affirmative questions are very similar and that they differ from declarative affirmative or negative sentences, which are semantically opposite. In the case of questions, the only difference introduced by negation is a change in presuppositions.

The equivalents of **yes** and **no** both in Basque and In Spanish are identical to the English ones in this respect. However, this is by no means a linguistic universal. Some languages have a different distribution of lexical items and meanings in the area of yes/no answers.

Consider for instance Icelandic²⁸. Icelandic has negative reply that is identical to English 'no'. This word is *nei*, and it is used similarly to the English one. However, there

²⁸. I am indebted to W. O'Neil for bringing these facts to my attention.

are two lexical items corresponding to 'yes': they are *já* and *jú*. What distinguishes these two lexical items is that the former is an affirmative reply to an affirmative question, whereas the second one is an affirmative reply to a negative question, as illustrated in (87):

(87) a. *er hann heima? já / *jú*
'is he home?' yes (he is)

b. *er hann ekki heima? jú /*já*
'Is he not home?' yes (he is)

We can thus conclude that in Icelandic, unlike in English, Basque and Spanish, affirmative responses are sensitive to the presence of negation in the question asked.

2.7.4. On the Syntax of English yes and no.

If the claim about the meaning of yes and no in English is correct, we can account for examples of the sort of (82) to (85). However, we do not obtain good results in cases like (77). Let us see why. Suppose (77a) and (77b) were the replies to a question like 'Did you buy this book?'. Now, (77a) does not mean 'we did buy the book, we did', and (77b) does not mean 'we didn't buy the book, we didn't'. However, there are some other significant differences between answers

like (77) to answers like those in (84) and (85), which provide a solution to this problem.

If we compare the behavior of **yes** and **no** in (84) and (85) to cases like (77a) and (77b), we notice that there are sharp differences in intonation. Whereas in (77a, b) there is no necessary pause between **yes/no** and the rest of the answer, in (84) and (85) there is a sharp and obligatory pause. This contrast is illustrated in (88):

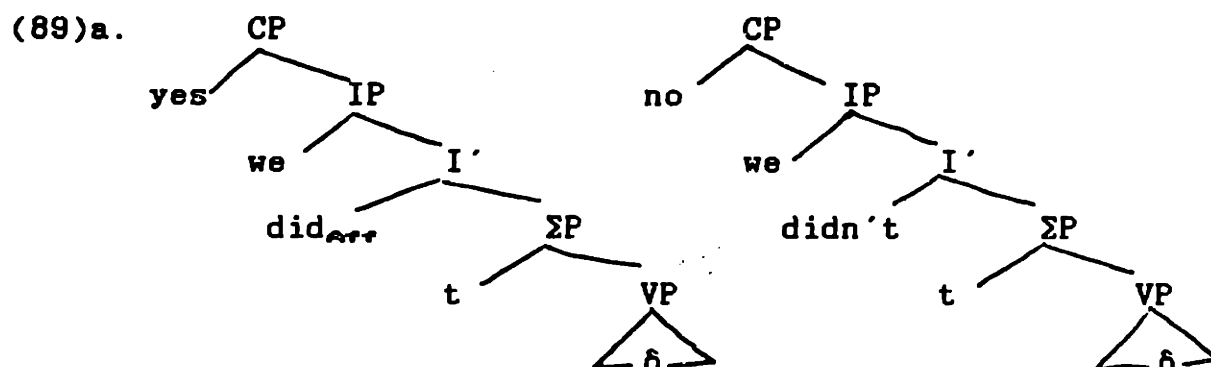
(88) Q: Did you buy this book?

- a. Yes we did
- b. No we didn't
- c. Yes, we didn't like the other one
- d. No, we bought another one
- e. *Yes we didn't like the other one
- f. *No we bought another one

Secondly, omission of **yes/no** in (77a, b) or (88a, b) does not alter the answer, which remains a direct response of the question asked. On the contrary, omission of **yes/no** in (84) and (85) or in (88c, d) introduces a change: the answer now is not a direct one. What is now left is identical to what we have when one replies 'It is still winter' to a question like 'Don't you think this is a rather cold day?'. That is, the answer has nothing to do with the question, as far as

the syntax goes²⁷.

I claim that all these divergences have a common cause. Whereas in answers like (77a, b) and (88a, b) **yes** and **no** are part of the same sentence as the rest of the answer I did or I didn't respectively, **yes** and **no** in (84), (85) and (88c, d) are not part of the same sentence as the rest of the answer. More specifically, in cases like (88a, b), the position of **yes** and **no** is the head of CP, right above IP, as in (89):



There is independent evidence in support of this claim. For instance, the elements **yes** and **no** cannot occur in questions, with or without *do*-support, and regardless whether they are

²⁷. From the observation that **yes** cannot mean 'it is not the case that' and that **no** cannot mean 'it is the case that' (Cf. above in the text), Kiefer (1983) concludes 'that **yes** and **no** cannot be considered to be reduced (elliptical) direct answers' (Kiefer 1983:4). I do not see how the conclusion follows from the observation, since it is logically possible (and empirically correct, if the description of the meaning of **yes** and **no** sketched in the text is correct) that there be another meaning of **yes** and **no** by which these items directly refer to the question they are direct answers to.

echo questions or not:

- (90) a. *Did yes you sing that song?
b. *Yes you sang that song?
c. *Did no you sing that song
d. *No you sang that song?

Secondly, they occur in complementary distribution with other complementizers³⁰:

- (91) a. *She said that yes we could sing
b. *She said that no we couldn't sing

Interestingly enough, other languages diverge on this complementary distribution of *yes* and *no* type words and complementizers. Thus for instance, Spanish patterns differently in this respect, in that it allows cooccurrence of the affirmative *sí* or the negative *no*, used in answers, and an overt complementizer, as shown in (92):

³⁰ The examples in (91) must be distinguished from cases where *yes* and *no* are used parenthetically, as in (i):

(i) he said that, yes, he had seen her cry

In these cases there seems to be a real CP recursion:

(ii) dijo que sí, que la había visto llorar
(iii) esan zuen baietz, negar egiten ikusi zuela

- (92) a. pro ha dicho [que sí podemos cantar]
 b. pro ha dicho [que no podemos cantar]

Moreover, compare the following sentences:

(93)

- | | |
|---------------------------|-------------------------|
| a. She has said yes | e. Ella ha dicho sí |
| b. She has said no | f. Ella ha dicho no |
| c. *She has said that yes | g. Ella ha dicho que sí |
| d. *She has said that no | h. Ella ha dicho que no |

I will later argue that this difference follows from the fact that Spanish *sí* and *no* are not generated in C, but in Σ . Note that in Spanish *sí* and *no* are used in emphatic affirmation and sentence negation, the values of ΣP .

It is interesting to note that in certain contexts, which seem to fall under the generalization of propositional attitude predicates, we find elements of Σ as complements of the verb. Consider for example (94):

- | | |
|-----------------------|---------------------|
| (94) a. I hope so/not | g.*I hope yes/no |
| b. I guess so/not | h.*I guess yes/no |
| c. I imagine so/not | i.*I imagine yes/no |
| d. I suppose so/not | j.*I suppose yes/no |
| e. I think so/not | k.*I think yes/no |
| f. I believe so/not | l.*I believe yes/no |

But even in these cases, **so** and **not** cannot coocur with an overt complementizer:

- (95) a.*I hope that **so/not**
b.*I suppose that **so/not**

Going back to English **yes** and **no**, I have argued above that their semantic content is to affirm or deny the positive declarative version of the question. This means that these words do not qualify or modify the event of the IP they dominate, but, rather, they are connected to the question. Therefore, these heads are not subject to the Tense C-Command Condition, and thus Tense need not raise to C-command them at S-Structure.

That **yes** and **no** are related to the question asked, more than to the replies that may follow, is further confirmed by the fact that these elements are only licensed as a reply to a question. Thus, they cannot be generated in an empty CP in order to emphasize the sentence, or to negate it:

- (96) a. Unlike penguins, seagulls do fly
 b. *Unlike penguins, seagulls yes fly
 c. *Unlike penguins, yes seagulls (do) fly
 d. Unlike seagulls, penguins do not fly
 e. *Unlike seagulls, penguins no (do) fly
 f. *Unlike seagulls, no penguins (do) fly³¹

In this respect, **yes** and **no** are very much like complementizers of embedded sentences. Complementizers like **that**, **whether**, etc... are not subject to the TCC either, because they do not modify the event of the clause they head, but rather, they establish a connection between the main clause and the embedded one. They are also selected by the matrix verb, in a way similar to which the elements **yes** and **no** have to be licensed by a question.

I haven't yet explained what the structure of answers like (84), (85) and (88c, d) is, although I have already say that the **yes** and **no** present in them does not belong in the same sentence as the rest of the answer. Let me make that statement more precise. I have established that **yes** and **no** are heading a CP, and that they affirm or deny the positive declarative version of the question they are answers to.

³¹ Ignore the reading where **no** is part of the subject DP, as in:

(i) a. Unlike [most seagulls], [no penguins] like warns

Note further, that the IP these elements dominate can be optionally deleted:

(97) Q: Did you buy me a present?

a. [~~CP~~ Yes [_{IP} δ]

b. [~~CP~~ No [_{IP} δ]

I would like to claim that in the examples in (84), (85) and (88c, d), there are indeed two sentences juxtaposed. One of them is headed by **yes** or **no**, and has the S-structure representation in (97), and the other one is the sentence that follows. In this sense, the answers we are now considering would be parallel to other instances of juxtapositions, like:

(98)

a. I like Irune, she is terrific

b. I am going to the movies, tomorrow I have to work hard

In these cases, the only connection between the two sentences is that the second one is some kind of amplification of the first one. This is exactly the relation between the **yes** or **no** sentence and the one that follows after the pause in the examples we are considering. This becomes more apparent when we do not delete the entire IP as in (97), but only the VP, leaving the Phrase Marker down to ΣP overt. Consider the following:

(99) Q: Do you play piano?

a. No, I sing

b. No I don't, I sing

(99a) and (99b) are identical in meaning, because the only difference is whether the first sentence has IP deleted or VP deleted. However, if we attempt to do the same with an answer that involves only one sentence, the result is ill formed:

(100) Q: Do you play piano?

a. Yes we do

b. *Yes we do we do

The contrast between (99b) and (100b) is thus due to the fact that no in (99) is heading a CP which is not part of the sentence 'I sing'. In (100) however, there is only one sentence. The corresponding structures are given in (101):

(101)

a. [_{CP} no [_{IP} δ] // [_{IP} we sing]

b. [_{CP} no [_{IP} we don't [_{VP} t [_{VP} δ]]]] // [_{IP} we sing]

c. [_{CP} yes [_{IP} I do_{VP} [_{VP} t [_{IP} δ]]]]

Where (101a) corresponds to (99a), (101b) to (99b) and (101c) to (100a), and the notation // represents separate

sentences, juxtaposed. Note in *passim* that it is never obligatory to delete any constituent. Thus, the VP could also be overt in (101), which would result in the following sentences:

- (102) a. No we don't play the piano
b. Yes we do play the piano

2.7.5. Answering in Spanish.

Let us now consider how affirmative and negative answers to yes/no questions behave in Spanish. As we would expect given the data from Basque and English, in Spanish also there are interesting restrictions as to what can constitute an answer.

The first paradigm to consider is the one in (103):

- (103) Q: *Leiste el libro que te traje?*
'Did you read the book I brought you?'
a. (Sí), sí lo leí
b. *lo leí
c. Sí

The answers in (103) illustrate two uses of *sí*: in one case,

1

sí is separated from the rest of the answer by a pause; it can be followed by the second type of **sí** (103a), which is in turn followed by the inflected verb. The second type of **sí** occurs attached to the verb, forming a single intonation constituent (103a). As (103b) illustrates, the bare inflected verb results in ungrammaticality. Finally, there is the possibility of replying with a bare **sí**. We will later discuss what type of **sí** this is.

In contrast, the paradigm of possible negative questions diverges from the one in (103). Consider the examples in (104):

(104) Q: leíste el libro que te traje?
'Did you read the book that I gave you?'

a. (no), no lo leí

b. *no, lo leí

c. no

Similarly to English, a negative answer like (104b) is ungrammatical³²; (and so is an answer with the bare

³². Ignore readings like the following:

(i) Q: Te aburrió el libro que te traje?
'Did the book that I brought you bore you?'

a. No, lo leí de cabo a rabo
'No, I read it beginning to end'

For a discussion of these type of answers, see the preceding section.

inflected verb). Parallel to the *sí* series, there are two uses of *no* as well: the first one is illustrated in (104a), and it is followed by a pause. The second one is attached to the verb and belongs in the same intonation unit as the inflected verb. It is also possible to reply with a single *no*, whose nature will be discussed below.

Let us consider some differences between the two types of *sí*. Observe first that whereas one of them does not require adjacency with the inflected verb (much like English *yes*), the other one does (much like Basque *ba*).

Since in is intonation what distinguishes the two kinds of *sí*'s, I will represent the first type always followed by a comma, and the second one without a comma, indicating that it must be said with no pause at all. The contrast between both types of *sí* with respect to adjacency to the inflected verb is illustrated in (105):

(105) Q: Llovió ayer?

'Did it rain yesterday?'

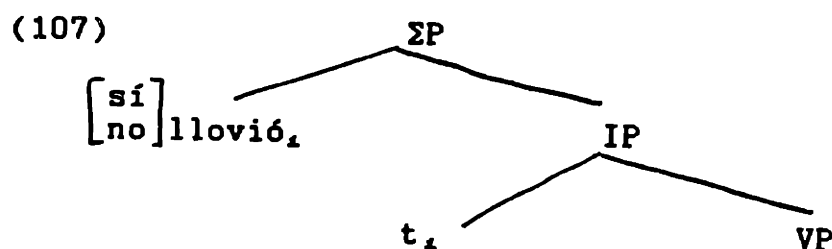
- a. *Sí*, ayer *sí* llovió
 - b. *Sí*, ayer llovió
 - c. **Sí* ayer llovió
 - d. *Sí* llovió ayer
-

The same is true for the series of no's, as shown in (106) (I follow the same convention of distinguishing them with commas):

- (106) a. No, ayer no llovió
 b. *No ayer llovió
 c. No llovió ayer

Let us assume that the sí and no that are attached to the inflected verb are generated in ΣP , above IP, like ba and ez in Basque, and like the [_{neg}] and [_{err}] of section 2.4.

The S-structure representations of the sentences involving these elements are shown in (107):



Zagona (1988) presents evidence that no and Infl in Spanish are amalgamated in a single X⁰ by S-structure. In this respect, Spanish no is unlike French pas but like French ne.

Zannuttini (1989) argues that *no* in Southern Romance is generated above IP. In earlier work, Bosque (1980) proposed that negation in Spanish was generated in a position dominating S. I will follow the idea that *no* is higher than IP, and implement it by claiming that it is one of the options in Σ , together with *sí*, [~~no~~] and [~~no~~].

The fact that *sí* and *no* are generated in the head of Σ in Spanish contrast with the nature of *yes* and *no* in English, which are generated in Comp, as argued in the previous section. This explains the following contrasts between the two languages:

- (108) a. *pro* creo [_{CP} que [_S *sí/no*]]
- b. *I think [_{CP} that [_S *yes/no*]]

CHAPTER 3:
NEGATIVE COMPLEMENTIZERS

3.1. INHERENTLY NEGATIVE VERBS:

A CLAUSAL/NON-CLAUSAL ASYMMETRY.

It is a well known fact that Negative Polarity Items (henceforth NPI) can be licensed across clause boundaries without the occurrence of overt negation (Klima (1964), Linebarger (1980) and references therein). Some examples of this interclausal licensing are given below:

- (1) a. The witnesses denied [that anybody left the room before dinner]
b. The professor doubts [that anybody understood her explanation]

It has been usually assumed since Klima (1964) that it is the negative force of the main verbs deny and doubt that

makes the embedded clause a NPI licensing domain.¹ If this assumption is correct, we should expect that in (2) the NPIs are licensed as well, since they are direct objects of the same verbs *deny* and *doubt*. However, as noted by Progovac (1988), this is not the case: the NPIs in object position are not licensed. These NPIs can only receive, marginally, a 'free choice' reading², characteristic of unlicensed NPIs (Ladusaw (1979)):

- (2) a. *The witnesses denied anything
- b. *The professor doubts any explanation

As noted by Feldman (1985), examples like (3) clearly illustrate that this asymmetry is a fact about the structural relation between *deny* and its sister:

- (3) I deny that the witnesses denied anything

¹ It will be recalled that in the discussion of inherent negatives in section 35, *doubt*, *too*, and *without* were assumed to contain the syntactic symbol *neg*. With these words, however, *neg* was assumed to have no phonological form; i.e., *neg+doubt* had the form *doubt*, and the verb *doubt* did not occur without the symbol *neg*. (Klima, 1964:313)

² This asymmetry has also been pointed out, independently as far as I can tell, at least in two other works besides Progovac (1988): Feldman (1985) notes the contrast for English in a footnote and Kempchinsky (1986) acknowledges also in a footnote that Jäcas notes it for Spanish.

In (3), the matrix occurrence of *deny* licenses the object NPI of the lower clause *deny*, although the embedded clause is ungrammatical if it is not embedded, as shown in (2a).

It is this asymmetry between clausal and non-clausal arguments of 'inherently negative' verbs that will motivate the main claim of this chapter. Given its central role, I will discuss it in more detail, in order to show that it holds consistently, even in English, despite occasional appearances to the contrary.

3.1.1. Three Criteria to Distinguish licensed NPIs.

I will present here three criteria that distinguish licensed NPIs from 'free' ones. In each of them, the sentences in (1) will pattern as having licensed NPIs, whereas the sentences in (2) will pattern like instances of 'free' NPIs.

(I) The first criterion involves the adverb *just*. Attachment of this adverb forces a 'free choice' interpretation of the constituent headed by *any*. The effect induced by *just* can be seen in (4). Thus, compare (4a), to (4b):

(4) a. I didn't eat anything, I starved
I ate truffles

b. I didn't eat just anything, I ate truffles
I starved

In (4a), the NPI anything is licensed by negation, and thus the sentence means roughly the same as 'I ate nothing'. Hence, the appropriate continuation of this sentence is 'I starved' and not 'I ate truffles', since the later would result in a contradiction. However, in (4b), the introduction of the adverb just induces a complete reversal in the interpretation of the sentence. Now, the entailment is that I ate something out of the ordinary. This is in fact the effect that obtains by introducing just in a context where the NPI is licensed by negation. Just forces the 'free' reading of the NPI, changing the interpretation of the sentence. On the other hand, introducing just in a context where the constituent headed by any is anyway 'free choice' does not induce a change in interpretation.

Let us see what results are obtained when just is introduced in the examples in (1) and (2). If just is introduced in the examples in (2), the interpretation of the sentences do not change; thus, (5a) and (5b) mean the same as (2a) and (2b):

(5) a. The witnesses denied just anything

b. The teacher doubts just any explanation

If anything, the only change is that the sentences are now more acceptable. This is so because **any** has only a 'free choice' reading in all the examples in (2) and (5), and **just** makes that reading more salient.

For those speakers who do not find **just** particularly helpful in inducing a 'free choice' reading, there is another option that gives similar results. This is to introduce the modifier **ol'** after **any**. This particle can be inserted either alone or in combination with **just**, and it also has the effect of forcing a 'free choice' reading.

Notice that the sentences in (2) also become more easily acceptable if we introduce modals, and if the DP itself is modified, as in (6):

- (6) a. The witnesses will deny any statement made by the
defendant
b. The professor would doubt any explanation given
by a student

These sentences sound less awkward than the ones in (2); but, even in these cases and maybe even against the speaker's first intuition, the **any** constituents still have only a 'free choice' reading. Thus, if we introduce the adverb

just, the interpretation of the sentences does not change at all, a result that can only obtain if the constituent had solely a 'free choice' reading already in (7):

(7) a. The witnesses will deny just any statement made by
the defendant

b. The professor would doubt just any explanation
given by a student

In contrast, when we consider the sentences in (1), we find that they behave in a radically different way. Thus for instance, adding just (and/or ol') to the sentences in (1) induces a sharp change in interpretation, indicating that the NPI previous to the insertion of just was not 'free' but licensed:

(8) a. The witnesses denied that just anybody left the
room before dinner

b. The professor doubts that just anybody understood
the explanation

The conditions under which the sentences in (8) and (1) are true are not the same. Thus, (8a) is true even if the witnesses agree that some people left the room before dinner. Their claim is that only certain people did it. By contrast, the sentence in (1a) is true if the witnesses are

claiming that absolutely nobody left the room before dinner. Similarly, in (8b), the sentence is true even if the professor believes that some of her students did understand the explanation, whereas in (1b) the professor believes that none of them did.

(II) The second criterion for distinguishing 'free' and licensed NPIs will involve substitution of the inherent negative verbs for non-negative ones. In cases of 'free' any constituents, this change has no consequences, whereas in cases of licensed NPIs it results in ungrammaticality.

Consider the sentences in (8), which are identical to those in (2) except for the fact that modals and relative clauses have been added to make them more acceptable. If the any constituent is a 'free choice' in (8), then substituting deny or doubt will have no effect on the acceptability of the any constituent, because the negative verbs play no role in licensing the presence of the any phrase. This expectation is indeed borne out.

If we replace deny and doubt with verbs that are never licensers of NPIs like repeat and believe, the sentences are still good and the NPIs have the same interpretation of 'pick any' (Vendler (1987)):

(9) a. The witnesses will repeat any statement made by
the defendant

b. The professor would believe any explanation given
by her student

However, when this criterion is applied to the cases in (1),
and we substitute repeat and believe for deny and doubt, as
we did before with the sentences in (2) and (6), the results
are now sharply ungrammatical.³

(10) a. *The witnesses repeated that anybody left the
room before dinner

b. *The professor believes that anybody understood
the explanation

(III) The third criterion involves NPIs that do not have
a 'free choice' reading available. There are NPIs like a
single N which do not have a 'free' reading. Instead, they
have the following two choices: if licensed by an affective
element, they are interpreted as existentials, but if not
licensed, they are interpreted as equivalent to 'one and

³I follow Ladusaw's (1979) convention: "... the
asterisks on sentences containing any below represent
judgements about PS-any. Many have good FC-any
interpretations which I will be ignoring." (Ladusaw,
1979:105)

only one'. The two interpretations are illustrated in (11):⁴

(11) a. I didn't write a single letter,

I had no paper at all
the one for Mary

b. I wrote a single letter,

#I had no paper at all
the one for Mary

Let us now substitute the **any** constituents in sentences (1) and (2). The prediction is that in the cases where the **any** is a licensed NPI, we will find the interpretation in (11a), whereas in those cases where the **any** phrases are not licensed, we will find the interpretation in (11b). Let us first consider the paradigm in (1). The substituted versions are given in (12):

(12) a. The witnesses denied that a single person left
the room before dinner

b. The professor doubts that a single student
understood her explanation

The sentences in (12) have roughly the same interpretation

⁴The readings are facilitated if given a particular intonation contour. However, as we shall see in examples in (12), intonation cannot salvage cases where a single N is not licensed at S-structure. Hence, I assume that intonation contours are derived from particular S-structure representations, and thus they are not the determining factor in licensing, but a phonetic signal that licensing has taken place.

as the ones in (1). This shows that the NPI a single N is indeed licensed in the embedded clause.

By contrast, when we consider the sentences in (2) under this criterion, the effects are the opposite. I will use the sentences in (6) to give these sentences the best chance, given that some speakers find the sentences in (2) already quite marginal. Consider now the cases in (13):

- (13) a. The witnesses will deny a single statement made
by the defendant
b. The professor would/can doubt a single
explanation given by her students

The sentences in (13) have only one interpretation: in the case of (13a), there is only one particular statement the defendant will make, which the witnesses will deny. In the case of (13b), there is one particular explanation the professor will doubt. Hence, (13a) could be followed up with 'namely, the statement about her being in the kitchen during the shooting', and, similarly, (13b) could be continued with 'namely, the one about the bus catching fire on the road'. Note that no matter what intonation is given to the sentence, the NPI reading is simply not available in these cases.

We can therefore conclude that the asymmetry illustrated in (1) and (2) exists in English: NPIs are licensed only in clausal complements of 'inherent negative' lexical items. In what follows, I will be concerned with NPI cases of the sort in (1), where the interpretation of the NPI is that of an existential under the scope of negation. I will mark as deviant (*) all instances of non-licensed NPIs like the ones in (2), regardless of whether they acquire a 'free choice' interpretation or not. The asterisk thus means that the NPI is not licensed by negation, not necessarily that the sentence cannot have any interpretation at all.

Given the evidence just presented, we must conclude that there is a sharp contrast between clausal and non-clausal arguments of what are called 'negative verbs'. It is only in clausal arguments that NPIs are licensed by negation. NPIs are not licensed in non-clausal arguments.⁶ However, these results are very puzzling if it is true that the NPIs in the clausal arguments of these verbs are licensed by the 'inherent negation' of the main verb. If this is the case, there is no way to account for the clausal/non-clausal asymmetry with respect to NPI licensing.

⁶See below for a discussion on the status of action nouns like damage, involvement or allegation in examples like:

- (i) The bumper prevented any damage to the car
- (ii) The witness denied any involvement in the crime
- (iii) The senator denied any allegations of child abuse

3.1.2. No asymmetry induced by overt negation.

Note further that this asymmetry does not appear in cases where an overt negation licences NPIs across a clause boundary. Consider the examples in (14):

- (14) a. The witnesses didn't say that anybody left the
 room before dinner
 b. The witnesses didn't say anything

If we apply the two tests we used above to distinguish 'licensed NPIs' from 'free NPIs', the results are that there is no clausal/non-clausal asymmetry in (14).

(I) Hence, if just is introduced, the meaning of both sentences changes:

- (15) a. The witnesses didn't say that just anybody left
 the room before dinner
 b. The witnesses didn't say just anything

(II) And if the negation is eliminated, both sentences yield ungrammaticality^{*}:

(16) a. *The witnesses said that anybody left the room
before dinner

b. *The witnesses said anything

(III) If we substitute the any NPI for a single N, no radical change in interpretation is obtained, as illustrated in (17):

(17) a. The witnesses didn't say that a single person
left the room before dinner

b. The witnesses didn't say a single thing

(17a) can be interpreted as meaning the same as (14a). It also has another interpretation, namely 'the witnesses did not say that only one person left the room', but this is not relevant here. As far as the present arguments goes, it is enough to show that a meaning equivalent to (14a) is available for (17a). Similarly, (17b) has a meaning equivalent to (14b).

^{*} Again, like in all cases of NPIs that are not licensed, a very heavy stress can rescue the sentence, but only in the 'free choice' interpretation, which is not the one at stake here.

Given this evidence, we must conclude that there are fundamental differences between the NPI licensing properties of an overt negative morpheme and those of an inherent negative lexical element. Namely, whereas an overt negative marker does not discriminate between clausal and non-clausal complements in its ability to license NPIs, inherently negative lexical items do discriminate between these two types of arguments with regard to NPI licensing.

This result is unexpected if the negation in the inherently negative items is active for NPI licensing; both overt negation and this inherent negative feature should have the same licensing properties.

3.1.3. Some tough cases: action nouns.

There are some cases where the generalization presented above might seem to break down. All these cases involve action nouns. Some examples are given in (18):

- (18) a. The bumper prevented any damage to the car
b. The witness denied any involvement in the crime
c. She dispelled any doubts we had
d. He refused any medication
e. The senator denied any allegations of drug-trafficking

These cases do sound like NPI **any** to some native speakers. However, important differences can be pointed out that clearly show otherwise. Here, I will present a fourth criterion that distinguishes 'free choice' **any** constituents from NPI ones; this criterion is in the spirit of Ladusaw's (1979): 'free choice' **any** is a universal quantifier, but NPI **any** is an existential.

This fourth criterion involves putting **all** where we had **any**. If the **any** DP is a 'free choice', this change does not alter the conditions under which the sentence is true. However, if the DP headed by **any** is an NPI, the conditions under which the sentence is true do change significantly. In order to illustrate this, let us consider uncontroversial cases of both 'free choice' **any** and NPI **any**. Let us start with the former; consider (19):

- (19) a. **any** dog can bite
 b. **any** store would be cheaper than this one
 c. **all** dogs can bite
 d. **all** stores would be cheaper than this one

The sentences in (19a, c) and (19c, d) mean almost the same:⁷ if any dog can bite, then it must be true that all dogs can bite, and vice versa. Similarly, it is a necessary truth that any store would be cheaper than this one if and only if all stores are cheaper than this one. It is a sufficient condition for any to be a 'free choice' (rather than an NPI) that the substitution of all preserves truth conditions. If the substitution is possible, the any at stake is a 'free choice'.

Consider now sentences with NPI any, like the ones in (20):

- (20) a. I did not see any dog
b. Did any store give you a lower price?
c. Never did any senator say anything like that
before
d. If any human being were to enter this room...

⁷ There is of course one difference between 'free choice' any and universals like all and every: whereas the former takes the totality of elements one by one, the latter does not necessarily do so (Vendler (1967)). This difference becomes apparent in cases like (i) and (ii), which are by no means similar:

- (i) pick any card
(ii) pick all cards

This difference between 'free choice' any and other universal quantifiers is however not relevant for the purposes of the distinction made in the text.

If we now introduce all where we had any, the meaning of the sentences change considerably: (20a) could be false at the same time that (21a) is true, for instance if I have seen some dogs but not all of them. Similarly, one could answer 'yes' to (20b) and 'no' to (21b) being entirely truthful, and the same is true for the remaining cases.

- (21) a. I did not see all dogs
b. Did all stores give you a lower price?
c. Never did all senators say anything like that
d. If all human beings were to enter this room...

This confirms that there is an observable difference between NPIs and 'free choice' anys regarding their existential and universal quantificational force, respectively. We can now make the substitution in the apparently problematic cases in (18), in order to determine whether these cases are truly exceptions to the generalization that inherent negative verbs do not license NPIs in non-clausal complements. Hence, consider (22):

- (22) a. The bumper prevented all damage to the car
b. The witness denied all involvement in the crime
c. She dispelled all doubts we had
d. He refused all medication
e. The senator denied all allegations of drug-trafficking

There is no possible scenario where any of the sentences in (22) could be true and its correlate in (18) false, or vice versa. Thus for instance, if it is true that the bumper prevented all damage to the car, then it is necessarily true that the bumper prevented any damage to the car. Similarly, if the witness denied all involvement in the crime, she denied any involvement in the crime as well, and if she dispelled all doubts we had, then it is also true that she dispelled any doubts we had. Hence, we can conclude that all sentences in (22) entail their correlates in (18). Crucially, however, the entailment from all to any does not hold in cases of NPI any; the sentences in (21) do not entail the sentences in (20). Therefore, the examples in (18) are cases of 'free choice' any². They do not constitute counterevidence to the claim that negative verbs do not license NPIs in non-clausal complements.

² This result is further confirmed by cross-linguistic evidence. Progovac (1988) provides evidence from Serbo-croatian, where NPIs do not have a free-choice reading available. Object NPIs always yield ungrammaticality in negative environments, as shown in (i):

- (i) *ovoj ku -i nedostaje i-kakvo mesto
 this house-DAT lacks any-what-kind place
 ('this house lacks any kind of place

 da se sedi napolju kad pada ki a
 that self sits outside when falls rain
 where one can sit when it rains')

Spanish also lacks 'free choice' readings of its NPIs, and NPIs are not allowed in these environments (Jacas (1986)):

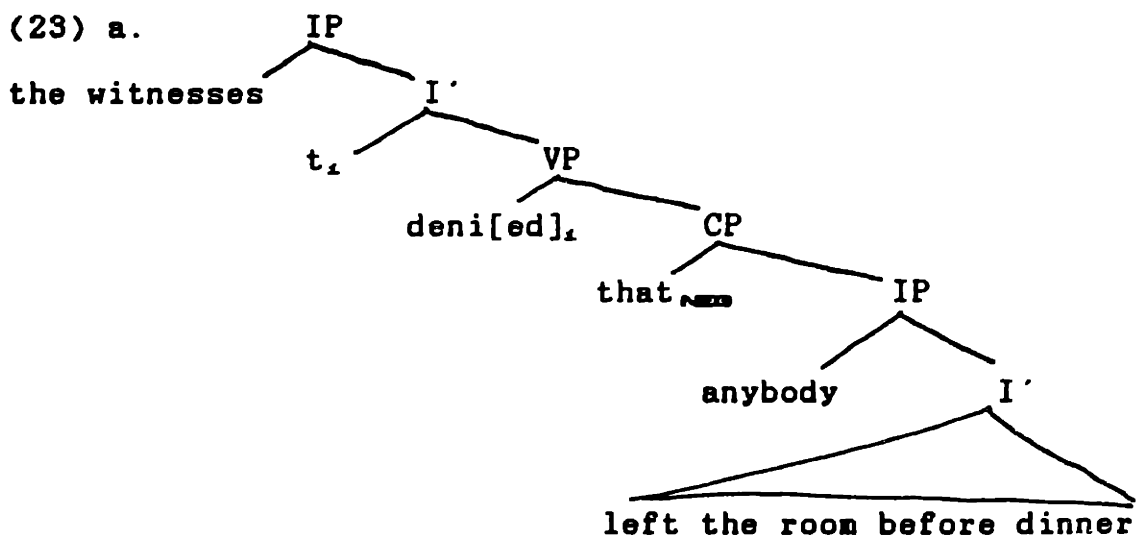
- (ii) *Noriega negó ninguna acusación de narcotráfico
 ('Noriega denied any allegation of drug trafficking')

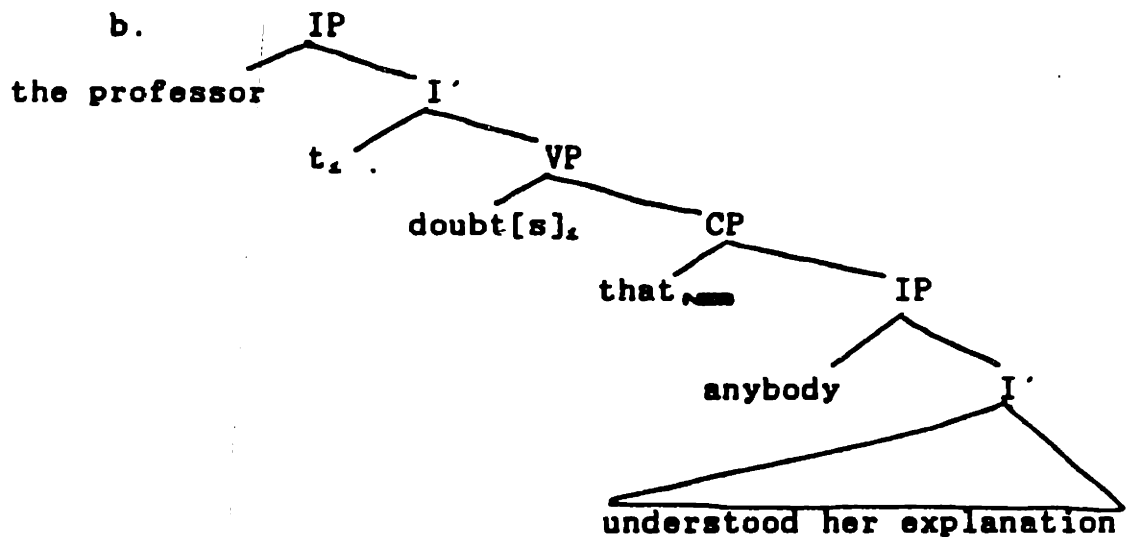
3.2. AN EXPLANATION OF THE ASYMMETRY: [N] COMPLEMENTIZERS

3.2.1. The Proposal.

I will claim that the clausal/non-clausal contrasts presented in the previous section involve the presence versus absence of a negative complementizer. Lexical elements like *deny* and *doubt* select complementizers that have the feature [+neg]. It is the complementizer that licenses the NPIs in the examples in (1). The absence of the complementizer precludes licensing of NPIs, and thus the fact that NPIs in non-clausal arguments are not licensed follows trivially.

The S-structure representations of the sentences in (1a, b), under this hypothesis, are as illustrated in (23a, b):





Previous discussions of these type of sentences assumed that the syntactic structure of the embedded sentences in (23a) and (23b) was identical to the structure of a declarative clause like 'I say [that penguins fly]'. The NPI licensing properties thus relied crucially on the structure of the matrix verb (Klima (1984)), or on the downward entailing properties of the matrix predicate (Ladusaw (1979)). Thus, in the case of doubt or deny, these analyses focus on the verbs themselves in order to account licensing of NPIs across clause boundaries, failing to explain the asymmetry presented in 3.1.7.

⁷Hale (1988) makes a proposal regarding negation in Warlpiri, which involves selection of a negative AUX by a matrix negative verb; in this respect it is somewhat similar to the proposal put forward here. Warlpiri displays the

The proposal made here follows the idea put forward by Progovac (1988), in that the syntactic representation of sentences embedded under inherently negative verbs diverges from the structure of that clauses embedded under non-negative verbs.

Progovac (1988) argues that it is crucially the CP projection that is responsible for the successful NPI licensing inside the embedded clause. I depart from her analysis in the specifics of what in CP it is that licenses the NPIs. See below for a discussion of her proposal, which involves a polarity operator in the specifier of the CP

negative *kula* attached to the front of the inflected auxiliary. But *kula* can also follow the element *lawa*:

(i) *lawa kulaka-na pula-mi (nat^u)*
 negative neg-pres-I shout-nonpast (I)
 'I am not shouting. It is negative (i.e., not so)
 that I am shouting.'

(ii) *lawa kula-na-ZERO wawiri pantu-nu (nat^{ulu}-lu)*
 negative neg-defpast-I-it kangaroo spear-past (I-erg)
 'I did not spear the kangaroo. It is not so that I speared
 the kangaroo'

Hale argues that the element *lawa* is not a constituent of the sentence containing the negative auxiliary, as evidenced by the ungrammaticality of (iii):

(iii) **kulaka-na lawa pula-mi (na^{tu})*

Hale (1988) claims that *lawa* is a negative matrix verb, which takes the negative sentence as subject. He proposes that the embedded AUX acquires the negativized element by a special rule relating to the fact that its sentence is the subject of the negative verb.

projection, rather than the head C¹⁰

3.2.2. Some Further Supporting Evidence.

Added to the generalization presented in 3.1., there is more evidence internal to English supporting the existence of negative complementizers, which I will now discuss.

3.2.2.1. Lack of subject-object asymmetries

Subject NPIs in English are not licensed by sentence negation, because negation does not c-command the subject at S-structure. Only when negation is placed in Comp can the subject NPI be licensed (Cf. Chapter 1). In the cases under consideration here, the licenser is Comp itself, and, similar to cases where Neg has moved to Comp, the licensing of a subject NPI is obtained (24c):

- (24) a. *_{NP}Anybody [_S didn't leave]
b. [_{CP} Why didn't [_{NP} anybody leave]]
c. I doubt [_{CP} that_{NP} [_{NP} anybody left]]

¹⁰Progovac's observations and proposal were not familiar to me until very recently, when most of this chapter had already been written. Hence, some of the arguments presented here in support of the C_{NP} are also compatible with her proposal, and do at times overlap with her own arguments.

As shown in (24a), if the licenser does not c-command the NPI at S-structure, licensing fails. Hence, a case where the negative verb does not c-command the NPI but where the complementizer does is a crucial testing ground for this hypothesis. The prediction is that even if the verb does not c-command the NPI, the NPI will nevertheless be licensed, since the negative complementizer is still c-commanding it. This prediction is borne out, as the following example illustrates:

- (25) [~~is~~ that_{com} [~~is~~ anybody left the room before dinner]]_i
 was denied t_i by the witnesses

In fact, it is precisely examples like the one in (25) that force Ladusaw (1979) to introduce an 'ad hoc' condition in his Inherent Scope Convention for the distribution of NPIs in English. Let us consider what the problem is that sentences like (25) pose for Ladusaw (1979).

3.2.2.2. Ladusaw (1979): precedence and clausemateness.

Under Ladusaw's (1979) definition of scope, both the subject and the VP are under the scope of negation in a

clause. Ladusaw notes that, given this fact, it cannot be claimed that being in the scope of a trigger is a sufficient condition for the licensing of an NPI. If it were, subject NPIs would be licensed in negative sentences in English, and they are not. Moreover, Ladusaw notes that when a triggering element precedes the subject, that is, when it appears sentence initially, subject NPIs are licensed.

The following examples are taken from him, and they are similar to the ones we have considered in section 1.2.4.:

- (28) a. has anyone seen Clarence?
- b. rarely is anyone audited by the IRS

In light of these facts, Ladusaw (1979) must introduce an 'ad hoc' condition in the principles accounting for the distribution of NPIs; this condition requires that NPI appear rightward of their triggers as well as within their scopes. Thus, the condition introduces a linear constraint in terms of precedence.

However, Ladusaw notes, when the negation is in a higher clause, the precedence condition does not apply anymore. The examples presented by Ladusaw are given in (27):

(27) a. that anyone has finished yet isn't likely
 is unlikely
 is doubtful

b. for John to have found any unicorns is impossible
 isn't possible

c. for anyone to win all six races would be unlikely

Because of examples like these, which are identical to (25) in all relevant respects, Ladusaw reduces the precedence condition to those cases where the trigger and the NPI are clausemates. The 'ad hoc' condition added is thus as follows¹¹:

¹¹ Ladusaw also modifies the first part of his Inherent Scope Convention in accordance to (25). The condition added to it has been highlighted here:

Inherent Scope Convention (Ladusaw (1979))

A. Inheritance

- (i) A meaning *m* inherits the properties associated with the meanings which are its immediate components except as provided for in (ii) and (iii).
- (ii) When an *N*-meaning becomes the scope of a trigger, the resulting meaning is no longer an *N*-meaning. If the NPI is clausemate with the trigger, the trigger must precede.
- (iii) A sentence with a *W*-meaning produces a neutral meaning as an *S'*.

where *N*-meaning stands for the interpretation of a licensed NPI, and *W*-meaning is the interpretation of the so-called Positive Polarity Items.

- (28) A NPI must appear in the scope of a trigger.
If its trigger is in the same clause as the
NPI, the trigger must precede the NPI.
(Ladusaw 1979:112)

This solution is not ~~be~~ very satisfactory, particularly given the premises of Ladusaw's work: NPI licensing can only be accounted for in terms of the semantics of the clauses in which they occur, and not in terms of the syntax.

The problem posed to the enterprise by the addition of this condition is acknowledged by Ladusaw towards the end of the dissertation:

In spite of the argument of section 0, it is wrong to say that polarity filtering is totally semantic, since there is still reference to syntactic structure in part of the ISC [Inherent Scope Convention]: the left-right order restriction on clausemate triggers and NPI's.
(Ladusaw 1979:207)

Ladusaw also notes that this problem cannot be solved by simply altering the notion of scope, so that it will rule out those cases where the NPI is in the scope of the trigger but not licensed by it (as in cases of subject NPIs in negative sentences). Such a change, in fact, would make all the wrong predictions for all other cases of scope interactions. Indeed, the scope of the triggers does extend to those positions: if we substitute the NPIs with other types of quantifiers, the trigger has scope over the quantifier, as illustrated by Ladusaw in the following

examples:

(29) a. Three of the students rarely finish their papers
on time

b. everyone rarely agrees on whether to get
anchovies on a pizza

Hence, concludes Ladusaw, scope is not sufficient to determine NPI distribution, and the conditions on clausemateness and precedence must stay, even though they seem to threaten his central claim that 'the property that NPI's are sensitive to is not a property of sentences, it is a property that only expressions with functional meanings can have' (Ladusaw 1979:2-3).

3.2.2.3. On the relevance of the Comp head.

The problems encountered by Ladusaw (1979) are the result of attempting to deny the central role played by syntactic structure in determining the distribution of NPIs. Once the role of syntax is acknowledged, the oddities displayed by NPIs as compared to other quantifiers are easily explained away.

The precedence condition is no longer necessary once it is accepted that NPIs must be in the c-command domain of their

triggers at S-structure. The clausemateness condition, on the other hand, can be done without once it is accepted that what licenses the NPI in the embedded clause is not the upstairs negative verb, but, rather, the complementizer that heads the embedded clause. Thus, all the problematic cases are reduced to S-structure c-command by the licenser.

Let us go back to (25). As noted by Linebarger (1980), it cannot be argued that D-Structure plays any role in the licensing of NPIs, since subjects of passives are never licensed by an element that c-commands them at D-structure but not at S-structure:

(30) *anybody wasn't arrested by the police

Therefore, the grammaticality of (25) could not be accounted for on the basis of the D-structure configuration. Neither can it be argued that the NPI in the embedded sentence is actually licensed by the negative verb at Logical Form, after some kind of reconstruction has taken place (Chomsky (1976), Van Riemsdijk & Williams (1986) and references therein).

First, if reconstruction were available for NPI licensing, we would expect that a sentence like (30) would be grammatical. Second, even if we could somehow keep (30)

aside, an account of (25) in terms of reconstruction would predict that an NPI in a preposed VP should be licensed even if the licenser is not preposed along with it. This, however, is not the case. Thus, consider the VP preposing cases in (31), which yield ungrammaticality:

- (31) a. *_{VP}[_{VP} buy any records]_i , she didn't t_i
b. *[buy any records] is what she refused to do

The importance of the complementizer is also confirmed by the contrast between (32) and (33) (due to D. Pesetsky):

(32) (i) What did nobody do?

- a. *Buy any records
b. Buy records

(33) (i) What did Bill deny?

- a. That he had bought any records

The answer to the question in (32a) is ungrammatical, because there is no available licenser in the VP that constitutes the answer. Note, however, that if the NPI is not present, the answer is fine, as in (32b). In contrast, the answer to the question in (33b), which has an NPI in it and does not contain the negative verb *deny* is perfectly

grammatical. The crucial difference between (32a) and (33a) is the presence of the $C_{\neg}$ heading the clause.

The evidence presented strongly suggests that it is precisely the complementizer of the embedded sentence in (25) that is making the difference. All the ungrammatical cases we have considered lack negative complementizers.

The presence or absence of the negative complementizer is also crucial in complements of 'inherently negative' nouns. Thus, consider the following contrasts:

- (34) a. her denial that anybody left the room before the
 shooting surprised the jury
 b. *her testimony that anybody left the room before
 the shooting surprised the jury

The paradigm in (34) is accounted for under the negative complementizer hypothesis: in (34a), denial selects a $C_{\neg}$ which in turn licenses the subject NPI in the clause it heads. In (34b), however, there is no $C_{\neg}$ because testimony does not select it. Therefore, NPI licensing is impossible.

Moreover, the following contrast illustrates that, parallel to the cases in (1), noun complements of 'negative' nouns also display a clausal/non clausal asymmetry:

- (35) a. Her denial that any human rights should be
 respected shook the audience
 b. *Her denial of any human rights shook the
 audience

Whereas (35a) is fine as a result of the NPI being licensed by the C_N, (35b) is either deviant or only acceptable in a 'free' reading, as the usual test of introducing just will confirm.

The assumption that 'inherently negative' lexical items select a complementizer that has the [N] feature explains the asymmetry presented in section 3.1., and it accounts more satisfactorily for the conditions under which NPI licensing takes place.

3.2.3. [N] and [Wh] complementizers.

There are some clear parallels and some not so clear issues that can be brought up regarding [N] and [Wh] complementizers.

3.2.3.1. Selection.

Let us first consider the parallels: The first similarity is that [Wh] complementizers can be selected by lexical items that have an 'interrogative' meaning like **wonder** and **ask**, and [N] complementizers can be selected by lexical items with a 'negative' meaning (**deny** and **doubt**, for instance). However, both complementizers can also occur in environments where the main verbs does not appear to be 'interrogative' or 'negative' in a straightforward manner. Take for instance the examples in (36):

- (36) a. I can't say whether Mary will arrive
 b. that anyone might do anything like that never
 occured to John

It is not a straightforward matter to determine in what sense say in (36a) is interrogative. Note further that the presence of the modal **and not** (or a Q morpheme in the matrix sentence) is necessary in order to allow the presence of the [Wh] complementizer in (36a). If the modal **and not** are missing, the embedded Complementizer can no longer be [Wh] ¹²

¹² Note also that the verb **say** can always take a [+wh] complementizer if the subject of the matrix sentence is focalized, as in (i):

- (i) I say whether we will go on vacation or not!

This further illustrates that it is not solely the matrix

(37) *I say whether Mary will arrive

Similarly, in (36b), taken from Ladusaw (1979) the verb occur selects a [N] complementizer ¹³, although it is by no means an 'inherently negative' lexical item. The presence of the negative adverb is again mandatory to sanction the complementizer type, and its absence makes the selection of the negative complementizer invalid:

(38) *that_[N] anyone might do anything like that often
occurred to John

Feldman (1985) discusses many more cases that are similar to those in (36). Feldman (1985) notes that affectives in the sense of Klima (1964) and Ladusaw (1979) and root modals can alter the selectional properties of certain verbs ¹⁴, in that the presence of these elements allows these verbs to take [Wh] complements. Some of the contrasts noted by him are

verb that determines what complementizer is selected. See below about selection.

¹³ Given that English does not overtly distinguish declarative complementizers from negative ones, the presence of a negative complementizer will be 'signaled' in the text by placing a NPI in the embedded clause.

¹⁴ The verbs mentioned by Feldman are believe, suspect, doubt, suppose, assume, expect, assert, say, deny, imply, think, regret.

given in (39):

- (39) a. *Albert said whether energy was matter
b. Albert didn't say whether energy was matter
c. Why did you assume who I would bring?
d. They can never think what to do
e. We ought to deny how much John eats

Feldman concludes that the evidence forces us to abandon the idea that complement selection is determined by the verb of the matrix clause alone (Grimshaw (1979) and Pesetsky (1982)). Rather, he suggests, complement selection must be viewed as a compositional process, one where not only the matrix verb, but also the inflectional elements of the matrix sentence play a role.

This conclusion seems to be further confirmed by data on C_N selection, in that a functional element distinct from the lexical verb can affect the selection of the embedded clause.

3.2.3.2. NPI licensing

Both [Wh] and [N] complementizers are licensors of NPIs, as shown in (40):

- (40) a. I wonder whether anybody will show up
b. I deny that_[N] anybody will show up

Given that in (40a) it is the complementizer that licenses the subject NPI in the embedded sentences, all the asymmetries observed in the case of negative verbs and C_N also surface in relation to interrogative verbs and C_{WH}.

Thus for instance, similarly to the cases presented above, involving licensing of NPIs in the domain of negative verbs, there is also a clausal/non-clausal asymmetry when we consider interrogative verbs.¹⁵ Consider (41a) and (41b):

- (41) a. I wonder whether any questions will be asked
b. *I wonder about any questions

Whereas in (41a) the NPI any questions is licensed, this is not the case in (41b), where the NPI occurs in a non-clausal argument. As usual, we can resort to the just test: a non

¹⁵ Thanks to H. Lasnik for pointing out this crucial similarity.

licensed any will be interpreted identically whether just is present or not; a licensed NPI is forced to acquire a 'free' interpretation and thus the truth conditions under which the sentence is true will change. Consider now (42a) and (42b), where just has been introduced:

- (42) a. I wonder whether just any questions will be asked
 b. I wonder about just any question

It is clear that just induces a change in the interpretation of (41a) and (41b). The two sentences do not mean the same thing: in (41a) the subject wonders whether the number of questions asked will be zero or more than zero. In (42a), however, the subject of the sentence wonders about the kind of questions that will be asked. On the contrary, (41b) and (42b) have the same meaning. If anything, the only difference between the two is that (41b) is more easily acceptable than (42b). Nevertheless, both of them are instances of 'free' any.

If we passivize a sentence headed by a [Wh] complementizer, the NPI licensing properties of the embedded sentence do not change. This is shown in (43):

- (43) [_C whether [_{IP} anybody ever survives a plane crash]]_i is often asked t_i of commercial pilots by their passengers

In this respect too, the behavior of C_{wh} is parallel to the pattern discussed in section 3.3.2. regarding C_N

It is a well established fact that [Wh] is an extremely active feature in Syntax (Chomsky (1977): it triggers *move α* , it is an *affective* element in the sense of Klima (1964), and it plays a fundamental role in complementation. But note that [N] is also an active syntactic feature or property: it also induces *move α* (Klima (1964), Lasnik (1975)), and it is an *affective* element (Klima (1964)). Thus, it is not surprising that it should play a role in complementation as well.

In what follows, I will present abundant cross-linguistic evidence supporting the existence of [N]complementizers. Through the study of these cases, the nature of the [N]complementizer, and the nature of functional selection will hopefully become more clear.

3.3. EVIDENCE FROM BASQUE

3.3.1. A phonologically distinct [N] complementizer.

English does not distinguish overtly the [N] complementizer from declarative complementizers, in that both of them surface as *that*. However, if the two complementizers are indeed different syntactic entities, the expectation is that some languages will overtly distinguish them. Hence, we expect some languages to have one complementizer for the purely declarative cases and another complementizer for the cases where a negative complementizer is selected.

I will argue now that Basque is one of those languages.

There is a declarative complementizer *ela*¹⁴, whose distribution is like that of its English equivalent, the declarative *that*. Some instances of embedded clauses headed by *ela* are given (44):

- (44) a. [Galapagoak muskerrez beterik daudela] diote
Galapagos lizards-of full are-that say-they
'They say that the Galapagos are full of lizards'
- b. [hiriak eta hibiak kutsaturik daudela] uste dugu
cities and rivers polluted are-that thinkhave-we
'We think that the cities and the rivers are polluted'

¹⁴ Usually, this complementizer is referred to as -
(e)la. I will call it *ela* for simplicity. I will do the same
with all other complementizers.

There is also a [Wh] complementizer, distinct from *ela*, which occurs in embedded clauses where some operator movement has taken place. This is the complementizer *en*. The examples in (45) show an indirect question (45a), and a relative clause (45b), both headed by the complementizer *en*.

(45)

- a. [telebistako langileek greba egingo duten] galdetu diet
 television-of workers strike make will-whether asked aux

'I have asked them whether the television workers will
 go on strike'

- b. [Juanek erosi duen] kotxea 'mazda miata' bat da
 Juan bought has-that car-the 'mazda miata' one is

'The car that Juan has bought is a 'mazda miata''

There is also a third complementizer that occurs in direct object embedded clauses. This complementizer is *enik*; it is selected in negative environments like the ones we have been considering in the beginning of this chapter. The complementizer *enik* can be selected when the matrix verb is inherently negative, as in (46a, b):

(46)

- a. Amaiak [inork gorrotoa dionik] ukatu du
 amaia anyone hatred has-her-that denied has

'Amaia denied that anybody hated her'

b. lekukoek [gau hartan inor jauregira hurbildu zenik]

witnesses night that anyone castle-to near was-that

ukatu dute
denied have

'The witnesses denied that anyone got near the castle
that night'

The examples in (46a) and (46b) also show that Negative Polarity Items (*inork*, *inor*) are licensed interclausally in these cases, just like in English in the previous section.

Since the claim made here is that the Comp head is the element responsible for the licensing of the NPIs in the embedded clause, we expect to find a sharp clausal/non-clausal asymmetry in Basque as well. The asymmetry does indeed exist: when the verb *ukatu* takes a complement without a Comp head in it, licensing of NPIs in that argument is no longer possible and the sentences are ungrammatical:

(47) a. *Josebak ezer ukatu du
Joseba anything denied has

(<'Joseba has denied anything'>)

b. *Lekukoek hertzainak esandako ezer ukatuko dute
witnesses policeman said anything deny will they

(The witnesses will deny anything said by the
policeman')

Parallel to the English cases, a 'free choice' reading of the NPI is possible in these contexts in Basque. Thus, as in

English, in (47b), the NPI *ezer* can be even more easily interpreted as a 'free choice' element if the matrix verb is in the future, if modals are added, and also if the matrix verb is focalized¹⁷.

The example in (48) has all these: the sentence has the irrealis modal, the verb is heavily focalized, and the object of *ukatu* 'deny' is modified by an infinitival adjectival clause¹⁸

(48) *lekukoek ukatu egingo lukete nik esandako ezer*
witnesses deny do-irr would I said-that anything

'The witnesses would deny anything said by me'

¹⁷ I am indebted to X. Artiagagoitia for discussing these data with me.

¹⁸ It is interesting to point out that in addition to allowing its NPI to acquire a 'free choice' reading, Basque also has a separate lexical item with the same meaning as Spanish *cualquier*, a 'free choice' universal quantifier:

(iii) *edonor etor daiteke*
anybody come can
'anybody can come'

(iv) *cualquiera puede venir*
'anybody can come'

This fact seems to refute Progovac's (1990) claim that Negative Polarity *any* and 'free choice' *any* are separate lexical items that happen to be homophonous in English, and that whereas one of them is a Negative Polarity Item, the other one is the equivalent of Romance *cualquier*. The fact that Basque has the three way distinction indicates that both *anys* in English might be the same item, and that the explanation of why different interpretations are acquired in different contexts must lie on the nature of the licenser and its relation with the Negative Polarity Item.

But, also in Basque, there are ways to distinguish the two types of readings by introducing certain modifiers. The test is essentially identical to those used before for English. Here I will present just one test that distinguishes licensed NPIs from 'free choice' ones in Basque:

The test involves the introduction of the adverb *ere*.

Sarasola (1984) notes that this particle can be attached to NPIs in negative contexts. The particle *ere* cannot be successfully attached to a NPI that has not been licensed¹⁷.

The basic contrast induced by *ere* is illustrated in (49).

The example in (49a) shows a NPI in a negative sentence; it has *ere* attached to it and the sentence is grammatical.

However, in (49b), *ere* is attached to a NPI that is not licensed. The result is ungrammatical.

- (49) a. Ikernek ez du ezer ere aurkitu
Ikerne no has anything found
 'Ikerne hasn't found anything at all'

¹⁷ This particle does not have an exact equivalent in English. On top of the use of *ere* that is being considered in this test, Sarasola (1984) distinguishes the following uses of *ere*: (a) After something has been affirmed or denied, it is used to affirm or deny something else. In this value, it is similar to English 'too' and 'neither'

(b) If attached to conditionals it is equivalent to English 'even': "even if..."

(c) Attached to Wh-words it is equivalent to English 'ever', as in 'whoever', 'whatever', 'wherever' etc.

I will translate it as 'at all' in the examples below.

- b. *zuk esandako ezer ere sinistuko nuke nik
 you said anything believe would I

(‘I would believe anything at all you said’)

Consider now the contrast that obtains when *ere* is attached to NPIs in the domain of *ukatu* ‘to deny’: the NPIs inside a clause can be modified by *ere*, but the ones not headed by the *enik* complementizer cannot, as illustrated in the following examples:

(50)

- a. Amaiak [inork ere gorrotoa dionik] ukatu du
 Amaia anyone hatred has-her-that denied has

‘Amaia denied that anybody at all hated her’

- b. *lekukoek ukatu egingo lukete nik esandako ezer ere
 witnesses deny do would I said-that anything

(‘The witnesses would deny anything at all said by me’)

These results prove that whereas the NPIs in the clausal complements of *ukatu* ‘to deny’ are licensed, the ones in non clausal complements are not instances of licensed NPIs, also in Basque, like in English.

When the matrix sentence involves an overt negation, the [N]complementizer can also be selected, as in (51):

- (51) ez du Zuriñek [inor etorriko denik] esan
 no has Zuriñe anyone come will that said

‘Zuriñe has not said that anybody will come’

The example also illustrates that interclausal NPI licensing is also possible in matrix sentences involving overt negation. As expected, in these cases no asymmetry arises with respect to the type of complement taken by the verb, as shown by (49a) and (51).

Since it occurs in the same environments as the postulated [N] complementizer in the beginning of this chapter, and since it displays the same properties as its equivalent in English, I conclude that the complementizer *enik* is a [N] complementizer. It is the phonologically distinct version of English *that*_[N]²⁰.

3.3.2. Selection of [N] is not obligatory.

The fact that the [N] complementizer is phonologically distinct in Basque allows us to observe contrasts that are not directly detectable in English.

²⁰The reader might have noticed that all examples of inherently negative verbs given for Basque involve the verb *ukatu* 'to deny'. It seems to be a fact that inherent negative lexical items are extremely scarce in Basque. Thus, the equivalent of English *doubt* and Spanish *dudar* is not a verb, but a combination of the noun *zalantza* 'doubt' and some verb. Azkue (1905) has the verb *zalantzatu*, translated as 'to doubt', but he notes that it is never used as a transitive verb, but as unaccusative. In general, 'I doubt that...' is expressed by means of 'I don't think that...'.

One important fact to be discussed now is that the selection of [N] complementizer is not the only option in negative environments: rather, both the negative complementizer *enik* and the declarative complementizer *ela* can be selected, as shown by (52a, b):

(52)

a. *Iñigok ez du sinisten [lurrak eztanda egingo duela]*
Iñigo no has believed earth explode do will that

'Iñigo does not believe that the earth will explode'

b. *Iñigok ez du sinisten [lurrak eztanda egingo duenik]*
Iñigo no has believed earth explode do will that_[N]

'Iñigo does not believe that the earth will explode'

Under the hypothesis that *enik* is the [N] complementizer in Basque, and that *ela* is the declarative one, lacking the feature [N], the prediction is that NPIs will only be licensed in clauses headed by *enik*, not in clauses headed by *ela*. This is in fact the case, as illustrated by the contrast in (53)²¹:

²¹ Azkue (1923) notes that some dialects of Basque do not have *enik* complementizers. Eastern dialects like Labourdin, for instance, have a different distribution of complementizers without the option of *enik* (Oyharçabal, p.c.). I assume that these dialects are like English, in that the distinction between declarative and negative complementizers is not overt. Interestingly, Laffite (1979) notes that older stages of these eastern dialects did have the *enik* complementizer, which has only recently been put out of use.

(53)

a.*Iñigok ez du sinisten [ezerk eztanda egingo duela]
Iñigo no has believe anything explode do will that

('Iñigo does not believe that anything will explode')

b.Iñigok ez du sinisten [ezerk eztanda egingo duenik]
Iñigo no has believe anything explode do will that_[N]

'Iñigo does not believe that anything will explode'

The contrast illustrated in (53) cannot be detected in English because the two complementizers (53a) and (53b) are phonologically identical. Presumably, then, the English equivalent of (52b) is always interpreted as being structurally identical to (52a), that is, to be headed by a [N] complementizer, since the phonological output always matches the grammatical derivation.

3.3.3. Semantic differences in each choice.

One further contrast that is directly observable in Basque but not in English, concerns the different semantic interpretation attached to each choice of complementizer in a negative environment. Whether the embedded sentence is headed by *ela*, the declarative complementizer, or *enik*, the negative one, is not semantically neutral.

In this respect, we must qualify the claim made above about optionality in selection: selection of *enik* or *ela* in negative contexts is optional in that either choice yields a possible syntactic derivation; but the optionality is not such in that it makes a difference for NPI licensing (as seen above) and also for semantic interpretation.

I will argue that the presence of the [N] complementizer results in an interpretation where the embedded clause is under the scope of negation, whereas the choice of the non-negative complementizer results in an interpretation where the embedded clause is not. This fact results in the different truth value of the embedded sentence with respect to the matrix one.

Saltarelli (1988) describes the difference between *enik* and *ela* as a difference in presupposition of truth values²⁷.

²⁷The negative complementizer *enik* has a great morphological similarity with the partitive case *ik*. In fact, the complementizer *enik* appears to be composed of the interrogative complementizer *en* and the partitive marker *ik*. This fact has not gone unnoticed in the literature. The parallel between the negative complementizer *enik* and the partitive case has been pointed out at least in Azkue (1905), and in Saltarelli (1988).

-(e)nik is affixed to the embedded verb of complements of negative main clause verbs (...). However, when the truth of the embedded clause is presupposed on the part of the speaker, -(e)lla will appear as the complementizer. (Saltarelli, 1988:32)

This description seems rather accurate. Hence, for instance, the difference between (53a) and (53b) is the following: In (53a), that the earth is going to explode is taken to be a fact. What the sentence means, then, is that Iñigo does not believe something that is true. However, (53b) simply means that Iñigo does not believe that the earth will explode, but this later proposition is not taken to be a fact; it could be true or false, and therefore Iñigo could be right or wrong. Consider the sentence in (54):

(54) Galileok ez zuen sinisten [eguzkia lurrari inguruka zebilenik]

Galileo no had believed sun-the earth-to turns-in
went-that

'Galileo did not believe that the sun revolved around
the earth'

This sentence does not entail that what Galileo did not believe was necessarily true. Now, if we change the complementizer heading the embedded clause and insert *ela*, the declarative complementizer instead, as in (56),

(56) Galileok ez zuen sinisten [eguzkia lurrari inguruka zebilela]

Galileo no had . believed sun-the earth-to turns-at goes-that

'Galileo did not believe that the sun revolved around the earth'

the reading that obtains is that we take it to be a fact about the world that the sun turns around the earth, and that Galileo did not believe that. Judging from the sentence in (56), we are led to believe that Galileo must have been wrong.

These different semantic interpretations can be accounted for under the assumption that the *enik* complementizer is necessarily interpreted under the scope of the negative element that selects it, whereas the *ela* complementizer is interpreted outside the scope of the matrix negative. That is to say, at the level of Logical Form the sentences headed by *enik* remain in the scope of the matrix Infl and V, whereas the sentences headed by *ela* do not. A specific way of implementing this idea is to assume that embedded clauses headed by *ela* undergo Quantifier Raising at Logical Form (May 1985), whereas the clauses headed by *enik* do not.

Of course, this is a fact about C_n and not about its particular instantiation in Basque. We will see in the next

section that this semantic difference is manifested also in Spanish²³.

²³. There is one more instance where the complementizer *enik* is selected. Certain rethorical questions allow it too:

(i) Nork uste izango zuen Bilbon honenebeste kojo zegoenik?
who thought would have Bilbo-in so many crippled were that
'Who would have thought that there were so many crippleds
Bilbao?'

This example (from Bustintza (1918)), is noted by Altube (1929), who nevertheless considers it a 'negative environment'. As suggested by Ken Hale, the occurrence of *enik* in these rethorical questions is consistent with the description, because all cases entail doubt. Thus, (i) presupposes the doubt that there would be so many crippleds in Bilbao. Interestingly, Spanish licenses dubitative subjunctives in these environments:

(ii) quién iba a pensar que hubiera tanto cojo en Bilbao?
who would have thought that there were so many crippleds in
Bilbao?

See next section for the identity between *enik* and dubitative subjunctive as instances of *Q_{em}*.

3.4. EVIDENCE FROM ROMANCE: DUBITATIVE SUBJUNCTIVE

3.4.0. Introduction.

In this section, I will concentrate on the relation between the $C_{[N]}$ and subjunctive mood in Spanish (the results extend also at least to Catalan). I argue that the $C_{[N]}$ in Spanish selects subjunctive mood; this combination of $C_{[N]}$ and subjunctive is what is referred to as dubitative subjunctive by traditional grammars. I will show that the $C_{[N]}$ accounts not only for the interclausal NPI licensing in these cases, but also the occurrence of subjunctive mood in negative environments.

3.4.1. Interclausal NPI licensing in Spanish.

Similarly to the English and Basque cases discussed in the previous sections of this chapter, there are certain environments where Negative Polarity Items (NPIs) are licensed in embedded clauses of inherently negative verbs in Spanish. Thus, for instance, in the examples in (57), a postverbal n-word is licensed without having any overt licenser within the embedded sentence.

(57)a. Dudo que lo sepa nadie

'I doubt that anybody knows that'

b. El testigo negó que la acusada le hubiera dicho nada

'The witness denied that the defendant had told him
anything'

c. Ella ignoraba que hubiésemos estado nunca en Menorca

'She didn't know that we had ever been in Menorca'

Recall that postverbal n-words like the ones in (57) are NPIs and therefore require an affective element c-commanding them in order to be licensed (Cf. section 2.5.1.). The examples in (57) are parallel to the ones in (1) in all respects. Hence, as expected, they display the same asymmetry discussed in the first section of this chapter: NPIs are only licensed in CP arguments, but not in DP arguments. Thus compare (57) to (58), where NPIs heading DP complements induce ungrammatical results²⁴:

²⁴The contrast between (52) and (53) is noted in a footnote in Kempchinsky 1986, where the observation is attributed to Jacàs. Jacàs observed that verbs like *dudar* do not license NPIs in their own clause. Example (53a) is the one pointed out by Jacàs (Cf. Kempchinsky, 1986:206)

(58) a. *dudo nada de lo que me ha dicho

('I doubt anything of what she told me')

b. *El testigo negó nada de lo que la acusada le dijo

('The witness denied anything of what the defendant told him')

c. *Ella ignoraba nada sobre nuestros viajes

('She didn't know anything about our trips')

There is no 'free choice' reading or any other kind of interpretation that can be assigned to the sentences in (58). In this respect, the only difference with respect to English and Basque is that the asymmetry is more immediately perceived in Romance: the examples in (58) simply have no appropriate interpretation, and hence there is no need to resort to independent tests to prove that they do not contain licensed NPIs.

Also as expected, cases where an overt negation is involved do not display any clausal/ non-clausal asymmetry: in both cases, the NPI is licensed and the sentences are grammatical (59):

(59) a. Ella no ha dicho que pase nada malo

'She hasn't said that anything bad happens'

b. Ella no ha dicho nada

'She hasn't said anything'

3.4.2 $C_{[N]}$ and Subjunctive Mood.

Given the results obtained so far, we can conclude that the $C_{[N]}$ hypothesis is supported by the Spanish data. Spanish is like English and not like Basque, in that the declarative complementizer and the [+neg] one are phonologically indistinguishable: both surface as *que*. However, Spanish is unlike English and like Basque in that there is something else that $C_{[N]}$ affects: the mood of the sentence it heads.

All the embedded sentences we have considered so far are inflected for subjunctive mood. The subjunctive mood is in fact required in sentence headed by a negative complementizer. This fact makes the Spanish cases of negative complementizers more easily detectable than the English ones. Moreover, it allows us to determine more exactly the distribution of this complementizer: we can now compare the behavior of the Basque complementizer *enik* with the evidence from Spanish in order to further establish the nature of the $C_{[N]}$ in Universal Grammar.

As expected, given the evidence from Basque presented in the previous section, the choice between $C_{[N]}$ and declarative complementizer is available also in Spanish: Thus, it is possible to have indicative sentences as complements of

negative verbs, as (60) illustrates:

- (60) a. Sancho ignora [que su señor está arruinado]
'Sancho does not know that his lord is broke'
- b. Este libro niega [que Lorca fué asesinado]
'This book denies that Lorca was murdered'

But when the mood of the embedded sentence is indicative, it is no longer possible to have an NPI in it licensed without the sentence itself being negated:

- (61) a. *Sancho ignora [que su señor debe nada]
('Sancho does not know that his lord owes
anything')
- b. *Este libro niega [que Lorca fué nunca asesinado]
('This book denies that Lorca was ever
murdered')

These facts parallel exactly the data on Basque presented in the previous section, and thus they confirm that $C_{[N]}$ is not obligatorily selected by the lexical items that can select it.

The sentences in (61) contrast minimally with those in (57). The only overt difference is the mood of the sentence. We

can therefore reasonably assume that there is some relation between the subjunctive mood and the $C_{[CN]}$

This relation between subjunctive and $C_{[CN]}$ could not however be one of identity; if it were, that would imply that whenever subjunctive mood is present we should find all the effects that the postulated negative complementizer induces. For instance, NPIs should be licensed in all subjunctive sentences. That this is not the case is shown in (62), where the embedded sentences are inflected for subjunctive mood, and nevertheless the NPIs are not licensed, inducing ungrammaticality:

(62)a.*Carmen quiere [que la asamblea decida nada]
(‘Carmen wants the assembly to decide anything’)

b.*Andone espera [que sus experimentos resuelvan nada]
(‘Andone hopes that her experiments will solve anything’)

The examples in (62) show: first, that the postulated $C_{[CN]}$ and the subjunctive mood are not the same entity, because here we have sentences inflected for subjunctive mood where NPIs are not licensed, unlike in the ones in (62). Second, these examples also show that not all occurrences of

subjunctive involve a C_[N]

The claim I am putting forward is that subjunctive mood is required in a sentence headed by a C_[N]. However, a C_[N] is not required when a sentence is inflected for subjunctive mood. I will later discuss the status of subjunctive mood in Spanish, and argue that subjunctive is in fact an irrealis modal. The reason why clauses headed by C_[N] are inflected for subjunctive mood is because these clauses, being under the scope of negation (Cf. section 3.3.3.) are irrealis. Thus, all the contrasts observed for Basque in sections 3.3.2. and 3.3.3. hold also of the subjunctive/indicative distinction in Spanish. This is illustrated in the following examples, (from Kempchinsky (1986)):

- (63) a. No me pareció que el bar ~~estuviera~~ cerrado;
es más, creo que está abierto

'It didn't seem to me that the bar was ~~was~~ closed;
what's more, it is open'

- b. # No me pareció que el bar estaba cerrado;
es más, creo que está abierto

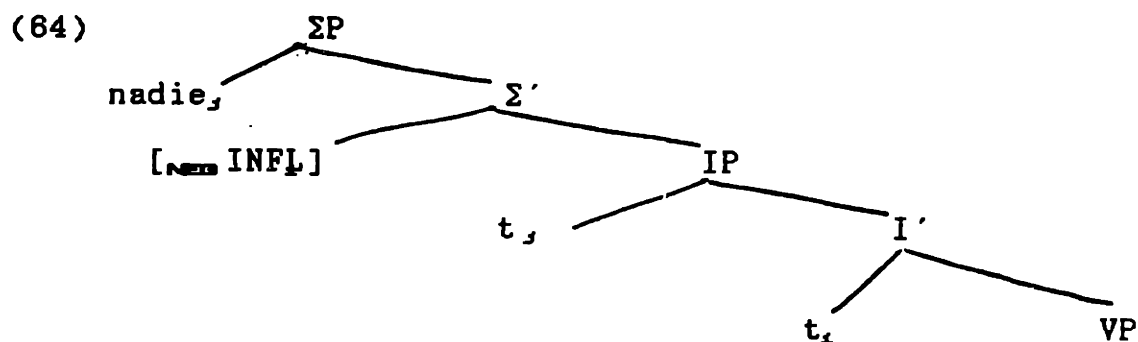
'It didn't seem to me that the bar was closed;
what's more, it is open'

The contrast between the perfect (63a) and the anomalous (63b) is totally determined by the presence versus absence of the $C_{[N]}$ (reflected in the change of mood in inflection). The fact is that the bar is open. If it didn't look closed to me, I could say so as in (63a), where there is a $C_{[N]}$ and thus the sentence is interpreted under the scope of negation. It would still make sense to admit that the bar is in fact open. In contrast, (63b) is anomalous because the embedded sentence is headed by a declarative Comp, which will not be interpreted under the scope of negation. The meaning of (63b) is 'the bar was closed but it didn't seem like that to me'; thus the anomaly of following the sentence with a statement about the bar being in fact open.

These data are exactly parallel to the contrasts observed in Basque, regarding the use of the $C_{[N]}$ (*enik*) or the declarative complementizer (*ela*). Thus, we can conclude that it is a general property of the $C_{[N]}$ that it demands that the sentence it heads be interpreted under the scope of the matrix negation.

3.4.3. $C_{[N]}$ and Movement to ΣP .

Recall the account of preverbal n-words given in section 2.5.: Romance n-words are Negative Polarity Items (NPIs), and therefore require an affective licenser. When these n-words occur preceding Inflection in a clause, they have moved to the specifier of ΣP , which is headed by the element $[_{NPI}]$. Whereas the overt specifier licenses the projection, the head licenses the NPI in the specifier via a SPEC-Head agreement relation. Thus, the S-structure representation of a sentence with a preverbal n-word is as in (64):



Recall also that, as shown in (64), Infl raises to the head of Σ at S-structure, in order to satisfy the Tense C-Command Condition. Further, the agreement relation between *nadie* and the head of Σ must also be satisfied at S-Structure.

If we combine these two independent hypotheses, we obtain the following scenario: In clauses headed by $C_{[N]}$, there are

two ways in which a preverbal n-word can be licensed: there is a negative complementizer available, which c-commands the NPI and thus licenses it, as we have seen in the previous section. Thus, the first prediction is that preverbal n-words will be licensed in the same way that postverbal ones are. But, moreover, there is also the possibility of having a preverbal NPI sitting in the specifier of a Σ P headed by [no]. In this latter case, there will be two negative licensers available. The interpretation of the sentence should therefore reflect this fact.

I will now show that the scenario just described does indeed obtain in Spanish²⁵, and that $C_{[no]}$ and Σ interact inducing interesting effects in the interpretation of the sentences.

Bosque (1980) notes that a preposed *nadie* word can be ambiguous between an existential reading and a universal negative reading. The sentence in (65) is one of the examples given by him:

- (65) Es imposible [que nadie lo sepa]
 Is impossible that anybody it know_{3rd}

The sentence in (65) has the interesting property of having

²⁵ All the effects about to be presented obtain also in Catalan (E. Bonet and E. Benedicto, p.c.).

two readings that happen to be contradictory. The two meanings that the sentence can have are given in (66), and they crucially involve the interpretation of the word *nadie*:

- (66) a. It is impossible that anybody knows it
b. It is impossible that nobody knows it

This kind of contradictory ambiguity extends in fact to all cases where a C_{CN} is involved. Some more examples are presented in (67) and (68):

(67) El director duda [que nadie venga al estreno]

1. 'The director doubts that anybody will come to the première'
2. 'The director doubts that nobody will come to the première'

(68) La ministra negó que [nada hubiera cambiado]

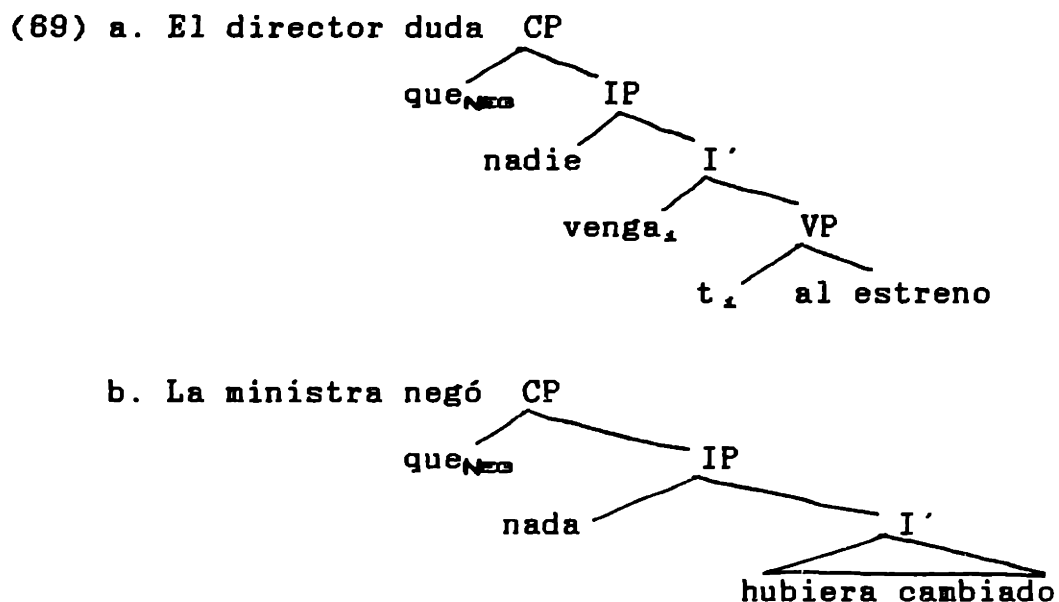
1. 'The minister denied that anything had changed'
2. 'The minister denied that nothing had changed'

Given the two possible ways in which n-words can be licensed in sentences headed by C_{CN} the contradictory readings of sentences in (65), (67) and (68) are straightforwardly accounted for:

a) In the cases where the preverbal n-word is interpreted as an existential (that is, the anybody reading in (67.1) and (68.1)), what we have is licensing by the C_{CND} and the n-word is sitting in the specifier of IP.

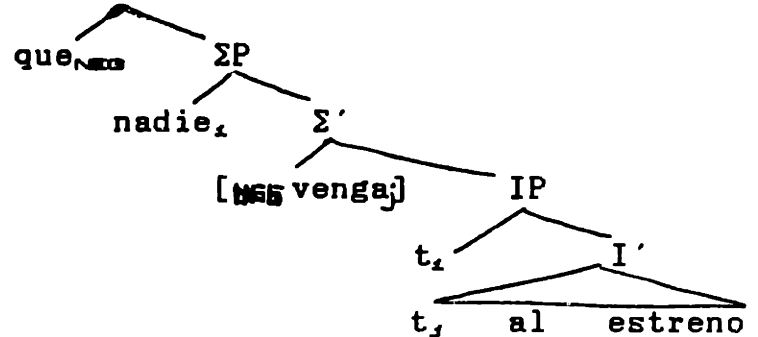
b) In the interpretation where *nadie* has a universal negative quantifier interpretation (that is, the 'nobody' readings in (67.2) and (68.2)), the n-word is sitting in the spec of ΣP headed by [μ_{neg}].

The S-structure representations of the first readings are illustrated in (69):

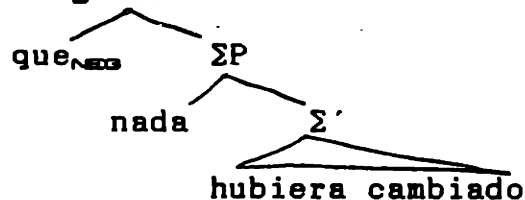


In the second reading, the ΣP has been projected: it is headed by the [_{NEG}] morpheme. The preverbal n-word now sits in its specifier, and it is thus licensed by it, as in matrix clauses. Hence, as in matrix clauses, the n-word is interpreted as if it had a universal negative reading. The S-structure representations are illustrated in (70):

(70) a. El director duda CP



b. La ministra negó CP



Given that these latter readings involve ΣP , we expect that they will be available also in embedded sentences where there is no negative complementizer. Thus, for instance, CP complements of negative verbs that are inflected for indicative mood can have preverbal n-words. But these indicative sentences are not headed by $C_{[NEG]}$ and, therefore, unlike the sentences headed by $C_{[NEG]}$, they display no ambiguity:

(71) a. Sancho ignora [que nadie es perfecto]

'Sancho does not know that nobody is perfect'

b. Este libro niega [que nadie vive en el Everest]

'This book denies that nobody lives in the Everest'

Recall that certain adverbs, like *frecuentemente* 'often', can occur between the specifier of IP and I, that is, between the subject and the inflected verb, but not between the specifier of Σ P and Σ . This fact accounted for the following contrast (72):

(72)

a. [~~M~~aría [_I frecuentemente [_I canta en la ducha]]]

b.*[~~N~~adie [_{Σ} frecuentemente [_{Σ} ~~N~~adie canta [_I en la ducha]]]]]

c. [~~N~~adie [_{Σ} ~~N~~adie canta [_I frecuentemente en la ducha]]]

Given that the ambiguity of sentences like (67) and (68) involves representations like (72a) and (72c), the prediction is that if an adverb like *frecuentemente* intervenes between *nadie* and the inflected verb, the ambiguity will disappear, and only an existential meaning will be available. This is so because the only possible S-structure representation where the adverb intervenes between *nadie* and the inflected verb is the one where *nadie* sits in the specifier of IP and the inflected verb sits in I. The

prediction is borne out, as (73) illustrates:

(73) a. El director duda [que ningún actor frecuentemente
olvide su texto]

'The director doubts that any actor often forgets
his text'

b. La ministra negó [que nadie frecuentemente hubiera
destruido documentos comprometedores]

'The minister denied that anybody often destroyed
compromising documents'

In these cases, the only reading available is the one where
the only licenser available is the complementizer. The
embedded sentence is no longer interpreted as having a
negation in it; there is no [_{neg}] heading a Σ P phrase.

I have shown previously that [+wh] complementizers are also
NPI licensers, in the same way [+neg] ones are (Cf. section
3.2.3.). Given this fact and the account of the ambiguities
that I have just given, the prediction is made that the same
ambiguities as in (65), (67) and (68) must arise also in
context where a [+wh] complementizer is involved. This is
indeed the case. Consider (74) and (75):

(74)

Me pregunto [si nadie vendrá a la fiesta]

1. 'I wonder whether anybody will come to the party'
2. 'I wonder whether nobody will come to the party'

(75)

Le gustaría saber [si nada ha cambiado desde que se fué]

1. 'She would like to know whether anything changed since she left'
2. 'She would like to know whether nothing has changed since she left'

The explanation for these ambiguities is of course identical to the one given before: In the first readings (English translation number 1), the NPI is licensed by the complementizer, and the NPI is sitting in the specifier of IP. In the second reading, the ΣP has been projected, headed by [$\bar{a}$], and the n-word is sitting in its specifier. This is why the sentence is now interpreted as having a negative element in it.

3.4.4. Volitional subjunctive and C_{NEG}

It has already been shown that not all subjunctive clauses are headed by a C_{NEG} . Hence, for instance, subjunctive clauses embedded under volitional verbs do not allow postverbal NPIs:

(76) *Koke espera [que venga nadie al estreno]

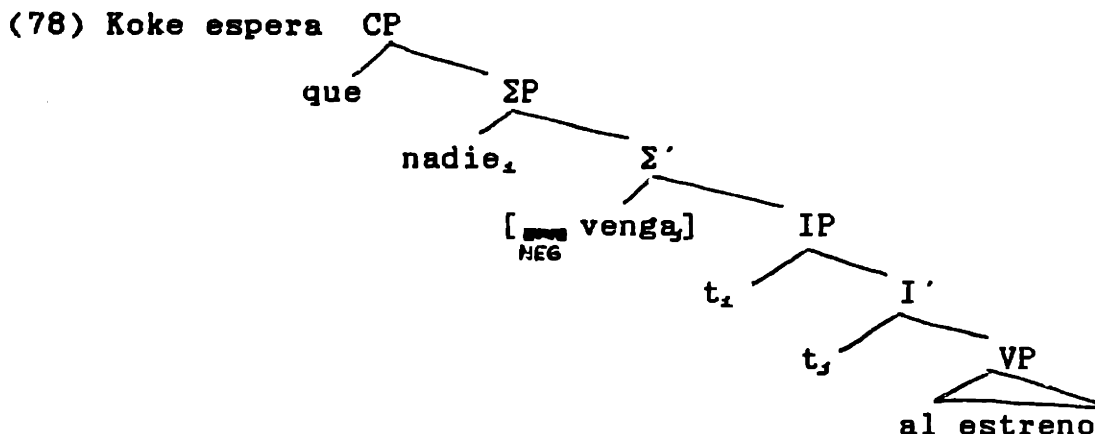
Koke hopes that come_{NEG} anybody to the première

Fronted n-words are allowed but they display no ambiguity. They are unequivocally interpreted as universal negatives, the interpretation obtained when these words have moved to the specifier of ΣP headed by [C_{NEG}]. This is shown in (77):

(77) Koke espera [que nadie venga al estreno]

'Koke hopes that nobody will come to the première'

The S-structure representation of (77) is as in (78):



The question that arises is what the behavior of these clauses is when the volitional verb is negated. We will now see that, when the matrix verb is negated, these type of clauses pattern like the cases considered above. They license Polarity Items even though there is no overt licenser in the clause, as illustrated in (79):

(79) Lander no quiere [que cambie nada]

'Lander doesn't want anything to change'

And when the n-word is preverbal, it displays the same type of ambiguity we have discussed above. Thus, consider (80):

(80) Pablo no quiere [que nada cambie]

1. 'Pablo does not want anything to change'
2. 'Pablo does not want nothing to change'

We can therefore conclude that volitional subjunctives are headed by a $C_{[N]}$ when the matrix sentence is negative. In this respect, volitional subjunctives are like any other clause. Moreover, they provide further evidence that subjunctive mood is not the key factor in the negative complementation, but rather a side effect. The crucial element in negative complementation is the head of C.

3.4.2. On the relation between C_{sub} and Subjunctive Mood.

Studies of subjunctive undertaken within the GB framework (Cf. Picallo (1985), Kempchinsky (1986) and references therein) have concentrated on a salient phenomenon found in subjunctive clauses, first pointed out by Guéron (1978). I will refer to this phenomenon as the Subject Disjoint Reference effect (name due to Kempchinsky (1985), henceforth SDR); it is illustrated in the examples in (81a, b):

- (81) a. Mingo_i dice [que pro_i canta un fandango]
 'Mingo says that she sings a fandango'
- b. *Mingo_i quiere [que pro_i cante un fandango]
 Mingo wants that sing_{subj} a fandango
 ('Mingo wants to sing a fandango')
- c. Mingo_i quiere que [pro_j cante un fandango]
 Mingo wants that sing_{subj} a fandango
 'Mingo wants her to sing a fandango'

In example (81a) we can see an embedded sentence inflected for indicative mood. The subject of the embedded sentence is pro_i, and it can be coreferent with the subject of the matrix clause, as expected under condition B of Binding Theory. In contrast with this, consider (81b), which is inflected for subjunctive mood. Coreference between the embedded pro_j and

the subject of the sentence is not possible. (81c) illustrates that the effect has nothing to do with the possibility of licensing the empty category *pro* in the subjunctive clause. It is the coreference between the subjects that is not possible.

Most accounts of this SDR effect have linked it to the very nature of subjunctive mood. Thus, for instance, one intuition shared by many proposals crucially relies on the properties of Tense in subjunctive clauses. Bouchard (1982) bases his account of the SDR effect on Bresnan's (1972) observation that subjunctives and infinitives are 'unrealized tenses'. Johnson (1984) and Picallo (1984), (1985) argue that the Tense of the subjunctive clauses is anaphoric and must be bound by the matrix Tense much in the same fashion in which anaphors must be bound in their governing category.

If the SDR effect is crucially linked to the nature of subjunctive Tense, the prediction is that all clauses inflected for subjunctive mood will display the SDR effect.

This is not true, as noted by Padilla-Rivera (1985)²⁴.

Subjunctive clauses embedded under inherently negative verbs do not display any SDR effect, as shown in (82):

(82)

a. Maitane_i ignoraba [que pro_i hubiera ganado el concurso]

'Maitane didn't know that she had_{subj} won the contest'

b. Santi duda [que pro_i vaya a encontrar trabajo este año]

'Santi doubts that he will_{subj} find a job this year'

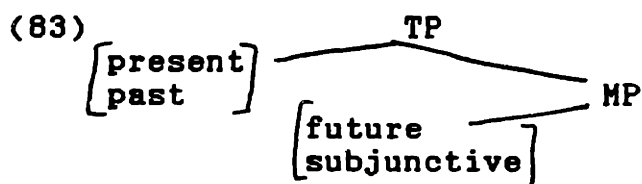
Kempchinsky (1986) concludes that subjunctive complements to verbs of doubt/denial, and in some dialects of Spanish and the other Romance languages, to factive emotive predicates, allow coreference of the embedded subject with the matrix subject. Only, verbs of volition and influence show SDR effect in their complements.

When we consider the data from dubitative subjunctive, it becomes apparent that whatever induces the SDR effect, it cannot be just the subjunctive inflection.

²⁴. See this work for an extensive discussion on Tense restrictions in subjunctive clauses, where volitional contexts again differ from dubitative ones: the latter do not display the restrictions that are typical of the former. This undermines the claim that it is in the very nature of subjunctive mood to be restricted in choice of Tense. Only certain subjunctives are restricted in that respect.

3.4.3 The Structure of Inflection in Spanish.

I want to put forward the idea that subjunctive is not a Tense, but a Modal. In particular, the inflectional structure I want to propose is the following:



Where subjunctive is a separate head from Tense, and in the same category as future. Romance subjunctive has properties similar to modals in other languages (Kempchinsky (1986)). The X' implementation of the inflectional structure of Spanish presented in (83) makes some immediate predictions: whereas future and subjunctive cannot cooccur in a sentence, both values of Tense can in principle cooccur with any of the values of the Modal Phrase, future and subjunctive. These predictions are borne out.

Regarding the cooccurrence of future and subjunctive, the prediction is confirmed: modern Spanish lacks any future subjunctive. Old Spanish, which presumably had a different inflectional structure, did have what is called the 'future subjunctive'. This future subjunctive is shown in (84):

(84) a. **Adonde fueres, haz lo que vieres**

'Wherever you go, do whatever you see'

These forms are substituted by present subjunctive in modern Spanish²⁷. Only in fossilized registers of the language, like old sayings or law, can these forms be found nowadays.

As for the interaction between the two values of Tense and the two values of Modal, they are all possible and instantiated in the verbal paradigms of Spanish. Let us consider them:

(i) Combination of [present] and [future] is the simple future: **iré** 'I'll go'; **comeré** 'I'll eat'...

(ii) Combination of [present] and [subjunctive] results in present subjunctive: **vaya** 'I go_{subj}'; **coma** 'I eat_{subj}'

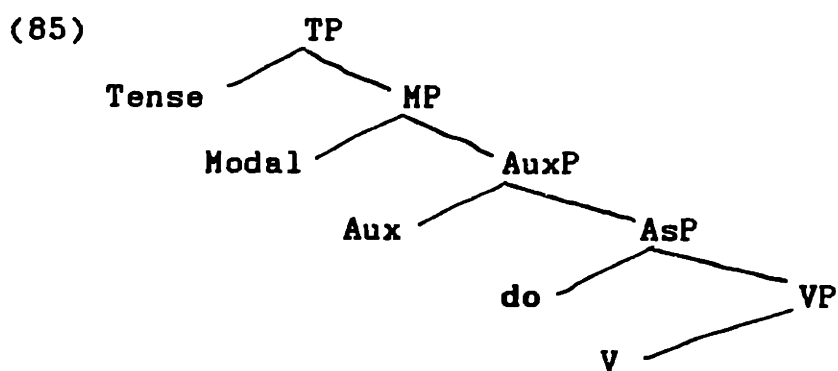
(iii) Combination of [past] and [future] yields the conditional: **iría** 'I'd go'; **comería** 'I'd eat'

²⁷ Hence, for instance, the saying illustrated in (47) is stated in present subjunctive nowadays:

(i) **Adonde fueras, haz lo que vieras**

- (iv) Combination of [past] and [subjunctive] results in the past subjunctive: *fuera* 'I went_{past}'; *comiera* 'I eat_{past}' .

All other verbal paradigms are obtained from the interaction of the heads in Tense and Modal with the category Aspect. When Aspect is [perfect], the past participle morpheme *do* heads the Aspect projection:



The verb will raise to Asp and no further, exactly like periphrastic verbs in Basque raise to Aspect and no further. The Auxiliary verb generated in AuxP is now the one that will raise to Modal and eventually to Tense. It will therefore be the auxiliary verb that supports the morphology generated by the different values of the heads Tense and Modal.

Hence, we find the same array of choices illustrated in (i) to (iv) above, repeated for the *haber* auxiliary of periphrastic forms, which differ from the ones above in that the value of aspect is now [perfective]. The perfective forms are illustrated in (v) to (viii):

(v) Combination of (i) and [perfective]:

habré ido 'I'll have gone'

habré comido 'I'll have eaten'

(vi) Combination of (ii) and [perfective]:

habría ido 'I would have gone'

habría comido 'I would have eaten'

(vii) Combination of (iii) and [perfective]:

haya ido 'I have_{aux} gone'

haya comido 'I have_{aux} eaten'

(viii) Combination of (iv) and [perfective]:

hubiera ido 'I had_{aux} gone'

hubiera comido 'I had_{aux} eaten'

The other possible choices in the verbal paradigm are those that involve no modal element (that is, a zero choice in the Modal Phrase). They are the following:

(ix) [-past] [-perfective] is the present of indicative:

voy 'I go'; como 'I eat'...

(x) [-past] [+perfective] is present perfect:

he ido 'I have gone'; he comido 'I have eaten'

(xi) [+past] [-perfective] is the 'pretérito indefinido'

fui 'I went'; comí 'I eat'

(xii) [+past] [+perfective] is the 'pretérito pluscuamperfecto'

hube ido 'I had gone'; hube comido 'I had eaten'

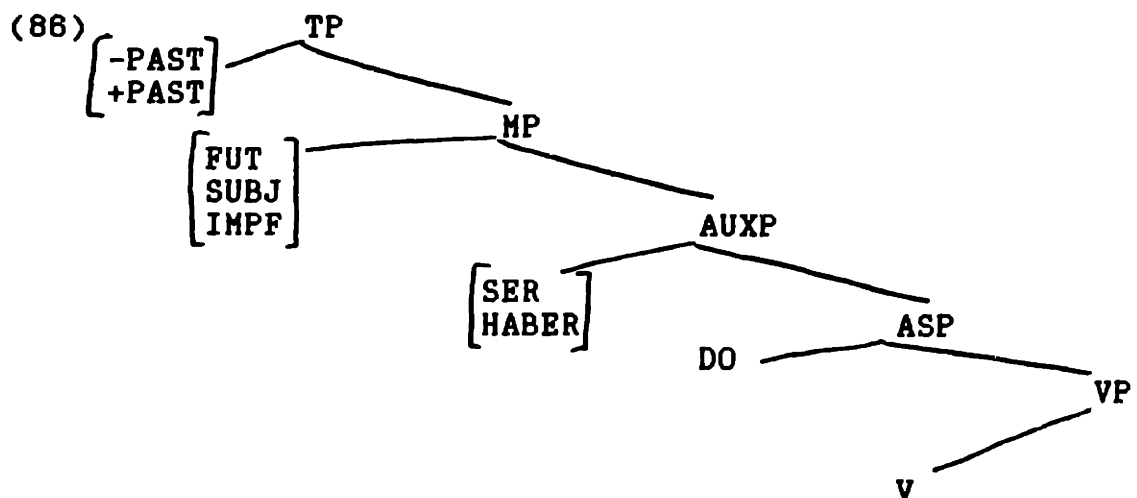
There are only two verbal forms to be accounted for in order to complete the verbal paradigm of Spanish. These are the so called imperfective pasts: *cantaba* and *había cantado*. Notice that the kind of imperfectivity conveyed by these forms is not incompatible with a periphrastic form construed with a participle and an auxiliary. In fact, the second one is perfective in meaning. I will claim that the morpheme distinguishing these two later forms from the ones in (xi) and (xii) is a third value of Modal, which I will call IMPF to suggest the traditional imperfective term:

(xiii) [+past] [IMPF] [0perfective]: imperfective past
iba 'I was going'; comía 'I was eating'

(xiv) [+past] [IMPF] [+perfective]: I don't know the name
había cantado 'I had sung'

If this morpheme is heading the Modal Phrase, we expect that it will be incompatible with both future and subjunctive. This prediction is borne out. There is a restriction in the presence of [IMPF] in the Modal head: it must be governed by a [+past] tense. Thus, present tense forms do not display the distinctions the past does, in opposing (xi), (xii) to (xiii), (xiv).

Under this view of Spanish Inflection, the distribution of inflectional elements is as shown in (86):



The structure of this tree is identical to the one proposed for the structure of Inflection in Basque in Laka (1988): TP dominates a MP, which in turn dominates an AuxP, which in turn dominates an AspP, which dominates VP.

The claim that Spanish (and at least Catalan) subjunctive is an irrealis modal is further supported by uses of subjunctive other than volitional and negative contexts. I will consider here some of these.

Subjunctive mood appears within relative clauses when and only when the head of that clause is not used referentially; that is, when the DP the relative clause is part of has narrow scope. Consider the following examples:

(87) a. *Compro gatos [que tengan pelo azul]*

'I buy cats that have_{subj} blue fur'

b. *Compro [gatos que tienen pelo azul]*

'I buy cats that have blue fur'

In (87a), the existence of cats that have blue fur is not presupposed; that is, the DP that contains the relative clause is interpreted non-referentially, and I speak truly

even if I never bought any cat. What (87a) means is that I happen to be a person that buys blue cats. However, in (87b), the existence of blue cats is presupposed, and the DP containing the relative clause is interpreted as having wide scope. For the sentence to be true, it must be the case that I have bought or am about to buy some cat or other whose fur is blue.

The hypothesis that subjunctive mood is an irrealis modal allows us to unify all environments where subjunctive appears. Volitional contexts, and clauses embedded under negative environments fall naturally together because they are all interpreted narrowly, parallel to the DPs that receive a non-referential interpretation. Relative clauses inflected for subjunctive naturally fit in the same category, because they are also interpreted narrowly. Moreover, adjunct clauses can also be inflected for subjunctive, as shown in (88):

(88) a. Cuando nieve en Sevilla te compraré un palacio

‘When it snows_{subj} in Seville, I’ll buy you a palace’

b. Cuando nieva en Sevilla dan fiesta en los colegios

‘When it snows in Seville, they have holiday at school’

Once again, the difference between the temporal adjunct clauses in (88a) and (88b) has to do with modality. Whereas (88a) considers a possibility that might never take place, the sentence in (88b) reports a fact. (88a) is indeed like a conditional, whereas (88b) is a statement.

Finally, the irrealis value of subjunctive is also illustrated by sentences containing modals or verbs that denote possibilities or wishes. These sentences are not embedded ones (unless we consider the adverbs heading them to be matrix clauses). I will assume that the adverbs heading them are sitting in the head of ΣP or CP , and that their irrealis character requires the presence of subjunctive in the clause. Some examples of these type of matrix subjunctive sentences are given in (89):

(89) a. quizá venga/*viene mañana
 maybe it will rain_{subj} tomorrow

 b. ojalá llueva/*llueve
 will it rain_{subj} tomorrow!

 c. así te parta/*parte un rayo!
 may a lighting strike_{subj} you!

Under the hypothesis that subjunctive is a modal, all

instances of subjunctive fall under a single group, and no stipulations about different kinds of subjunctives are necessary. Moreover, the evidence presented throughout this chapter shows that syntactic effects like the Subject Disjoint Reference Effect or interclausal Negative Polarity Item licensing must not be treated as inherently tied to the nature of subjunctive. Rather, these phenomena result from the properties of the various syntactic environments that select subjunctive mood: they all lack a truth value, and thus they all display the irrealis value of the modal projection in Infl.

On the other hand, assuming that distinct inflectional elements head distinct X' projections, and given the status of subjunctive as a modal head, the entire Spanish verbal paradigm can be quite simply generated.

3.4.4. Imperative is a value of Σ .

There is one element of Inflection in Spanish that I have not yet discussed: the imperative. I will now argue that Imperative in Spanish is generated in Σ . This explains straightforwardly the distribution of imperative in this language, and its interaction with the other values of Σ on the one hand, and subjunctive on the other.

It is well known that imperative mood and sentence negation are incompatible in Spanish. The following paradigm illustrates this fact:

- (90) a. Ven aquí
 'Come here'
 b. *No ven aquí
 c. No vengas aquí
 not come_{subj} here
 'Do not come here'

The example in (90a) is a case of imperative mood. The ungrammatical (90b) illustrates that negation cannot cooccur with a verb inflected for imperative mood. Finally, in (90c), a negative command is illustrated. The verb is now inflected for subjunctive mood, and negation can occur in the sentence.

This restriction on the cooccurrence of imperative and negation is not a linguistic universal. In Basque, for instance, imperative and sentence negation do cooccur in negative commands, as shown in (91):

- (91) a. jan ezazu hori
 eat you-imp that
 'eat that'
 b. ez ezazu hori jan
 not aux that eat
 'Do not eat that'

The same is true for French, as shown in (92). French does not require the change to subjunctive mood in negative commands:

(92) a. Viens ici

'come here'

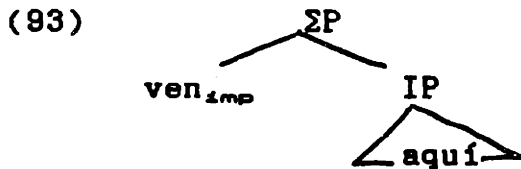
b. Ne viens pas ici

'Do not come here'

Hence, the source of the impossibility of having negation and imperative in Spanish must necessarily lie on language particular aspects of Spanish, such as the specifics of imperative and negation in this language.

The claim I will put forward here is that the reason why negation and imperative cannot cooccur in Spanish is because they both are elements of Σ . Therefore, they are in complementary distribution. The claim is that Spanish imperative is one of the values of Σ in this language. If this is correct, it follows not only that imperative and negation will not cooccur, but also that none of the other values of Σ in Spanish will appear with imperative mood. We will see that this prediction is correct.

Under this hypothesis, then, the S-structure representation of an imperative sentence like (90) is as in (93):



However, in a negative command, the head of Σ is occupied by no 'not'. Imperative cannot be generated. Subjunctive is generated in Modal, and Tense is headed by the default value [-past]. Thus the negative command is conveyed. If it is correct to think of subjunctive mood as an irrealis modal marker, it is expected that it would be required in a command that does not have imperative, given that imperative shares with the irrealis value the properties of being unrealized and modal-like.

The hypothesis that imperative is a value of Σ accounts naturally for the contrast in (90). But, as noted before, it makes a further prediction. If imperative is a value of Σ in Spanish, then it cannot coocur with any of the other values of that category. Let us consider the three remaining values of Σ . Consider first the affirmative values *si* and [*are*]. Take the examples in (94):

- (94) a. ven aquí
 b. *sí ven aquí
 c. sí, ven aquí
 d. *sí vengas aquí

In (94b) *sí* and the imperative appear together in an ungrammatical sentence, as predicted. The case in (94c) is not a counterexample, because it is a case of complementizer *sí*, as discussed in Chapter 2²⁸. However, (94d) where *sí* and subjunctive cooccur, as in (90c), is also ungrammatical. This indicates that *sí* and *no* differ in some fundamental way in contexts of commands.

I will assume that the ungrammaticality of (94d) is due to semantic factors: a command is unrealized and thus it cannot be affirmed, because only true statements can be affirmed. Note that in this respect affirmation and negation differ, since commands can be negated, because negation does not entail truth. If this is correct, that is, if the restriction is semantic in nature, we expect to find no languages that can have imperatives cooccurring with affirmative particles. The prediction is true at least of

²⁸ The structure of this sentence is presumably as in (i):

(i) [_{CP} *sí* [_{CP} δ] , [_{IP} *ven*_i [_{IP} *t*_i *aquí*]]

Basque, which, as you recall, didn't have restrictions on the cooccurrence of imperative and negation:

- (95) a. etor hadi hona
b. *bahadi etor hona

Interestingly, *sí* and subjunctive can cooccur in embedded sentences, even when the embedded sentence reports a command. Examples of this are given in (96):

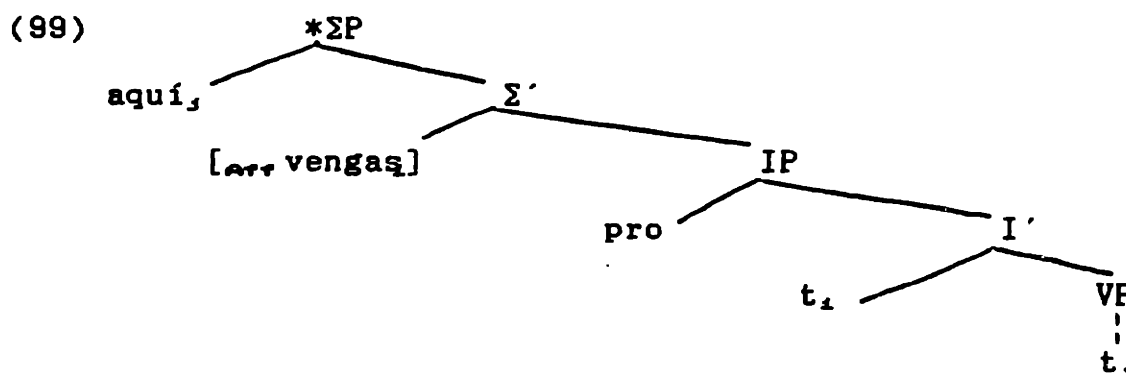
- (96) a. Espero que *sí* lo traigas
hope-I that yes it-bring_{subj} you
'I hope that you will bring it'
- b. Me pidió que *sí* fuera
me-asked that yes go_{subj}
'She asked me to go'

The sentence in (96a) illustrates cooccurrence of *sí* and subjunctive; the inflected verb is emphasized. The example in (96b) reports a request/command; the verb is inflected for subjunctive mood and emphasized by means of *sí*. This indicates that the ungrammaticality of (94b, c) and (95) is due to its semantic ill-formedness, and not to syntactic restrictions.

The same is true of the second affirmative value of Σ , [arr]. It cannot coocur with imperative, as shown in (98), but the reason for this seems to go beyond the particulars of Spanish grammar.

(98) a. *~~[arr]~~ aquí [arr] ven [...

Neither is it possible to have (99), where Σ is headed by [arr] and selects subjunctive mood, parallel to (94d).



Finally, let us consider the fourth value of Σ in Spanish. This fourth element in Σ is the empty [] that triggers the preposing of n-words. We have seen previously that negative values of Σ are not semantically incompatible with imperatives. Thus, the prediction is that this element should behave similarly to overt negation: it cannot coocur with imperative, but it can be part of a negative command when followed by subjunctive. This is indeed the case, as

illustrated in (100):

- (100) a. Ven aquí
 'come here'
 b. *nunca ven aquí
 (do never come here)
 c. Nunca vengas aquí
 'do never come here'

(100a) illustrates a command inflected for imperative.

(100b) has the n-word *nunca* fronted in Σ , and imperative inflection. The result is ungrammatical. Finally, (100c) shows the n-word in the specifier of ΣP , and the verb inflected for subjunctive. The sentence is now grammatical and it conveys a negative command.

The interaction between imperative and negative values of Σ is simply accounted for under the hypothesis that imperative itself is generated in Σ in Spanish. Furthermore, negative commands provide empirical support for the claim that subjunctive is an irrealis modal element.

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