Sentence negation in Basque

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This paper presents an analysis of sentence negation in Basque[1]. Basque negative sentences show a different pattern from non-negative ones with respect to the placement of the inflected verb. This particular pattern displays an interesting asymmetry depending on the clause type. The phenomena are explained in terms of head movement. The negative particle *ez* 'not' is analyzed as a head, in the spirit of Pollock (1989). This head takes IP as its complement and projects a Neg Phrase. At S-structure, INFL adjoins to negation; the fact that negation is initial unlike the rest of the heads in Basque creates the 'dislocated' pattern of matrix sentence negation. In embedded clauses, the complex [NEGATION/INFL] adjoins to COMP, which is final. This latter movement is the source of the asymmetry between matrix and embedded sentence negation.

The paper also explores grammatical constraints on sentence negation in natural languages. It is argued that Negative Polarity Items (NPI) are licensed by negation under c-command at S-structure, and that sentence negation must be c-commanded by Tense also at S-structure. The first condition is shown to account for NPI licensing by negation in Basque and English. The second condition which is named the Tense C-command Condition (TCC) is proposed based mainly on evidence from Basque. Some cross-linguistic evidence is shown to support the hypothesis as universal.

The paper is organized as follows: The first section presents some general properties of Basque grammar relevant for the analysis. The second section describes the phenomena induced by negation both in matrix and embedded clauses. The third section briefly reviews some analyses in the literature, focusing on the analysis by Ortiz de Urbina (1987). The fourth section contains the proposed analysis of sentence negation in terms of head movement and the Tense C-command Condition. Section five explores constituent order facts. In the sixth section embedded clauses are considered. Section 7 considers a special case of embedded sentence. The nature of the movements proposed, which take place at S-structure, is discussed in more detail in section 8 in relation to the Principle of Full Interpretation and the properties of head movement in the case of bound morphemes. Section 9 summarizes the main conclusions and provides some further evidence for the central claims in the paper[1].

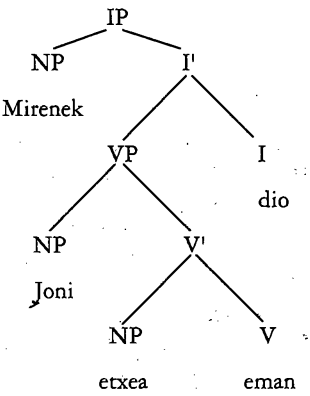
(1) I want to thank N. Chomsky, K. Hale, R. Kayne, R. Larson, H. Lasnik, A. Mahajan, J. Ormazabal, B. Ritter, E. Torrego and J. Uriagereka for their helpful comments and discussion on this work.

[ASJU Geh 14-2, 1991, 899-926]
http://www.ehu.es/ojs/index.php/asju

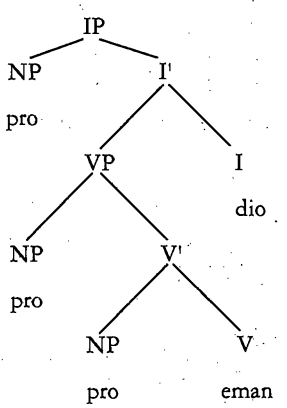
1. Some general properties of Basque

1.1. Assume for now that Basque is consistently head last (for discussion of this assumption with respect to certain functional heads see sections 3 and 4). The empty category pro is licensed in all verbal arguments (Salaburu 1986), plausibly in relation to the fact that Basque inflection shows agreement with subject, object and indirect object. This is illustrated in the following representation:[2]

(1) a. Miren-ek Jon-i etxea eman dio
Mary-E John-D house-dt give aux (3A-3D-3E)
'Mary gave the house to John'



b. Pro pro pro eman dio
give aux (3A-3D-3E)
'(S/he) gave (it) (to her/him)'



(2) The conventions for the gloses are: *E*=ergative case; *D*=dative case; *DT*=determiner. 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.

It is the agreement morphemes of the auxiliary which determine the reference of the pronominals; thus, a change in the morphemes of the auxiliary will convey a different meaning. For instance:

(2) a. pro pro pro eman d-i-gu-zu
give aux (3A-IplD-2E)
'(You) gave (it) (to us)'
b. pro pro pro eman d-i-da-te
give aux (3A-ID-3plE)
'(They) gave (it) (to me)'

The licensing of pro in these positions 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 or left dislocate the subject. It is this property that produces the surface 'free-constituent-order' the language shown (see Uriagereka 1986 and Laka & Uriagereka 1987. Thus, consider the following sentences, and compare to (1a) and (1b):

(3) a. [pro_1 pro_2 pro_3 eman dio] $Mirenek_1$ $Joni_2$ $etxea_3$
b. [pro_1 pro_2 pro_3 eman dio] $etxea_3$ $Joni_2$ $Mirenek_1$
c. $Etxea_3$ $Joni_2$ [Mirenek pro_2 pro_3 eman dio]
d. [pro_1 Joni pro_3 eman dio] $etxea_3$ $Mirenek_1$

The examples in (3) show only some of the combinations. In fact, all arguments can be combined freely among themselves, as well as with pro-dropped arguments, multipliying 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).[3]

1.2. Despite the relative free order just shown, no constituent can intervene between V and I, as illustrated in (4):[4]

(4) a. Etxea erori da
House-DET fall-down AUX(3A)
'The house fell down'
b. *Erori etxea da

Considering these data, it could be argued that V raising to I takes place at S-structure, yielding a single constituent. I will not take this position for reasons that

(3) Subject inversion in Romance isn't semantically inert either. See Contreras (1976), Calabrese (1985), and Raposo (1987).

(4) The only case where the sequence [V-I] can be altered is a stylistic process, literary and highly marked in the western dialects and somewhat more productive in the Eastern ones, by which the auxiliary occurs preceding the main verb:

(1) Etxea da erori
House-det aux(3A) fall-down
'It is the house that fell down'

This strategy is rather marginal in the language. I will not get into this phenomenon in the present work, but it can be argued that it is an instance of upwards movement of INFL to some [+ emphatic] head

will become clear when negation facts are discussed (section 2). Instead, I will take the position that V does not raise to I. Under this view, then, the reason why no constituent (argument or adjunct) may intervene between V and I in has to do with the impossibility adjunction to the right of VP (see section 5 for a more detailed discussion of the relation between V and I).

Further support for this claim 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 consist of a lexical verb marked for aspect and an auxiliary that carries the inflexional morphemes, synthetic verbs have no auxiliary when the aspect is punctual. Instead, the inflexional morphemes occur directly attached to the verbal root:

(5) a. Erabil-i ga-it-u-zu
Use-asp aux (1A pl-root-2E)
'(You) have used (us)'
b. Ga-rabil-tza-zu
1plA-use-pl-2E
'You are using us'

The example in (5) illustrates the synthetic verb *erabil* 'to use'. The form in (5a) has a perfective aspect marker *-i*, and the verbal form is parallel to the ones shown in previous examples; the form in (5b) denotes a punctual aspect by displaying a synthetic form, where the inflexional morphemes are attached directly to the verbal root. These facts can be accounted for if V raising to I does in fact take place in synthetic forms at S-structure. Hence, the different morphological shape of synthetic verbs as opposed to non-synthetic ones is a result of raising versus non-raising at S-structure. The only syntactic difference between these two types of verbal forms is that the synthetic ones behave exactly like the inflected auxiliaries, rather that like the uninflected lexical verbs. Thus, 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. That is to say, these syntactic proceses involve only the head I. This supports the idea of V raising to I taking place only in the case of synthetic forms. In what follows, it should be kept in mind that when I refer to the inflected auxiliary, synthetic verbs are also included.

2. Negation

2.1. The occurrence of the sentence negation particle *ez* 'not' induces a change in the description given in the previous section. Consider the following examples:

(6) a. *Etxea erori ez da
b. Etxea ez da erori
house-dt neg aux(3A) fall-down
'The house did not fall down'
c. Ez da etxea erori

Comparing (6) with (4) we find the following differences: In non-negative sentences, the lexical verb immediately precedes the inflected auxiliary (4a) and no

placed in the same position as negation. In fact, this movement of the auxiliary is also restricted, i.e. it does not take place in relative clauses, which can be argued to be due to movement to COMP, parallel to negation in embedded clauses (see below).

constituent may appear in between these two elements, as shown in (4b). In contrast, in negative sentences like (6), where the negative particle *ez* occurs to the left of the auxiliary, the main verb must follow the auxiliary instead of preceding it (6a, b).[5] Moreover, the order constraint illustrated in (4), where no constituent could appear between V and INFL, does not hold in negative sentences as shown in (6c). Any number of phrasal constituents can appear, in any order, between the [NEG-INFL] sequence and the lexical verb. Some of the possible combinations are illustrated in (7):

(7) a. Mirenek ez dio Joni etxea eman
Mary-E neg aux (3A-3D-3E) John-D house-dt give
'Mary dio not give John the house'
b. Ez dio etxea Mirenek Joni eman
c. Etxea Joni ez dio Mirenek eman
d. Ez dio eman Joni Mirenek etxea

Again, the different argument orders yield different readings of the sentence. Summarizing, the only constraints in matrix negative sentences are: a) The non-inflected verb must follow the auxiliary, and b) Nothing can intervene between the negation and the auxiliary.[6]

2.2. The facts just presented hold of matrix negative sentences, not of embedded ones. Thus, for example, relative clauses show the opposite pattern of (7), as illustrated in the following examples:

(8) a. [T erori den] etxea polita da
Fall aux(3A)comp house-dt pretty-dt is
'The house that fell down is pretty'
b. [T erori ez den] etxea polita da
Fall neg aux(3A)comp house-dt pretty-dt is
'The house that did not fall down is pretty'
c. *[T ez den erori] etxea polita da
('The house that did not fall down is pretty')

The same is true for embedded questions, which show the same COMP marker as the relative clauses, *-(e)n*:

(5) As said above, synthetic forms behave like the inflected auxiliary. However, nothing is left behind since the verb is a single inflected unit:

(I) a. Zuk liburua darabilzu
You-E book-dt aux(3A-use-2E)
'You are using the book'
b. Zuk ez darabilzu liburua
You-E neg aux(3A-use-2E) book-dt
'You are not using the book'

(6) The only elements that can intervene are certain event and truth value modifiers, probably generated in INFL itself (see Hualde & Ortiz de Urbina 1987).

(9) a. Mirenek galdetu du [etxea erori den]
Miren-E ask-asp aux(3A-3E) house-dt fall aux(3A)comp
'Mary asked whether the house fell down'
b. Mirenek galdetu du [etxea erori ez den]
Mary-E ask-asp aux (3A-3E) house-dt fall neg aux-comp
'Mary asked whether the house did not fall down'
c. *Mirenek galdetu du [etxea ez den erori]
('Mary asked whether the house did not fall down')

In these examples, the negative particle occurs attached to the auxiliary as in the examples in (7), but the main verb has to precede the auxiliary, as in the ungrammatical (6a), while sentences (8c) and (9c), that show the same order as the grammatical (7b) or (7c), are ungrammatical. The pattern shown in (8) and (9) holds of all embedded sentences, with one exception. Embedded clauses headed by the COMP marker *-(e)la* 'that' show a split pattern. Some speakers treat them as embedded clauses, but the majority of speakers treat them as matrix clauses in this respect. For the former (10a) is fine and (10b) is odd; for the latter (10b) is perfect and (10a) isn't:[7]

(10) a. Mirenek esan du [etxea erori ez dela]
Mary-E say aux(3A-3E) house-dt fall neg aux(3A)comp
'Mary said that the house didn't fall down'
b. Mirenek esan du [etxea ez dela erori]
Mary-E say aux(3A-3E) house-dt neg aux(3A)comp fall
'Mary said that the house didn't fall down'

2.3. To summarize, the data presented above show that the movement induced by negation, whatever its nature is, takes place in root clauses and not in embedded ones, with the exception of *-ela* clauses for most speakers. Interestingly, this marker occurs in clauses from where extraction is possible, i.e., it is the marker of a bridge COMP. On the other hand, clauses where extraction is not possible or worse are typically those showing the COMP marker *-(e)n*. Since this distinction seem to be that of clauses where an operator-variable relation is taking place versus clauses where it does not, it might be hypothesized that negation movement is incompatible with the occurrence of a CP-operator in the same clause. This predicts that in root sentences the presence of a WH-phrase in the specifier of COMP will prevent negation movement from taking place, contrary to the facts:

(11) a. Zer ez da erori
What neg aux fall
'What didn't fall-down?'
b. *Zer erori ez da

Similarly, in *-(e)la* clauses, WH-extraction through the specifier of COMP does not block negation movement:

(7) The main verb does not seem to make any difference in the behavior of the embedded negation; any verb subcategorizing for the complementizer *-ela* displays the same effects as *esan* 'to say', shown in the example.

(12) a. Zer pro esan duzu [t [ez dela erori]]
What say aux(3A-2E) neg aux(3A)comp fall
'What did (you) say did not fall-down?'

Therefore, negation movement is not blocked by a CP operator, but is nevertheless closely related to the head COMP.

3. Review of the literature

3.1. Traditional grammarians (Altube 1929, Azkue 1925) have noted the asymmetry between root and embedded clauses when describing negation. The first attempt to give an account of it, however, is not found until Goenaga (1980), in the Standard Model. Goenaga proposes two different rules: 1) Insertion of Negation, by which a sentence initial negation was placed between the verb and the auxiliary; and 2) Dislocation of [NEG-AUX]. This rule would move this constituent in front of the verb, yielding the order [NEG-AUX-V]. The complex [NEG-AUX] is placed in front of the verb, within the VP. Goenaga notes that these two rules have to be ordered so that rule 2 would only apply in the last cycle, that is, to the root sentence. However, there is no discussion on how this would be implemented in the grammar. This approach follows the spirit of Emonds (1970) in labeling certain rules as root clause transformations, but it does not adress the issue of why certain processes apply to one type of sentence and not the other.

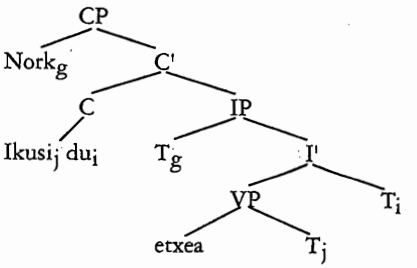
3.2. More recently, and within a Principles and Parameters approach, Ortiz de Urbina (1987) attempts to account for negation, in relation to his overall analysis of WH-movement and focalization in Basque. Ortiz de Urbina's work is one of the most insightful and consistent approaches to Basque grammar as a whole done so far in generative linguistics. These qualities have made it possible to generate meaningful discussion on topics that were previously poorly understood.

The core of Ortiz de Urbina's analysis of WH-movement and focalization is as follows: Basque is claimed to be a verb second language: the head COMP is initial and the verbal complex raises to it whenever WH-movement of focalization takes place. Crucially for this analysis, raising of V to INFL has to take place at S-structure, to account for the adjacency of WH-words and focalized phrases to the left of the sequence [V-INFL]. The type of verb second phenomenon at stake does not display any root/embedded asymetry; it takes place in all clauses if WH-movement or focalization are involved. Consider a case of WH-movement like (13):

(13) Nork ikusi du etxea
Who-E see aux(3A-3E) house-dt
'Who has seen the house?'

Under Ortiz de Urbina's analysis, (13) has the following S-structure representation:

(14)



As pointed out in Laka & Uriagereka (1987), a verb second approach to WH-movement in Basque fails to capture the following gradation: 1) An intervening adjunct is at most marginal; 2) An intervening absolutive argument is marginal; 3) An intervening ergative argument yields a strongly ungrammatical sentence; 4) Certain adjunct WH-phrases do not seem to require adjacency, since intervening arguments are admisible.[8] These facts, on the other hand, do not seem to hold for focalization.[9]

As for the position of the COMP head, claimed to be initial in Basque in this analysis, Ortiz de Urbina follows a proposal in de Rijk (1972). This early proposal, widely held in the literature afterwards, was made under the standars assumption in the seventies after Bresnan (1970) that there was a category COMP, sister of S, where either the complementizer or the WH-phrase ocurred. Put somewhat anachronistically, the head of COMP was defective and did not have a specifier. Since WH-movement was assumed to move a WH-phrase to the head of COMP and this movement is leftwards in Basque, it followed that the COMP position had to be initial. The ocurrence of the COMP morpheme to the right, attached to the auxiliary, was accounted for by a rule of cliticization.[10] Under the current approach, which Ortiz de Urbina takes, there is no need for the landing site of the WH-phrase to go along with the position of the head of C, since C is a non-defective projection (see, for example, Koopman 1985). Ortiz de Urbina does not discuss the possibility of a final COMP.

An initial COMP in Basque poses learnability problems. In a language where heads are final, the head-last status of COMP is the null-hypothesis for the child. However, there is no direct evidence other than the one at stake that the child could use to hipothesize a head-initial COMP, since, crucially, COMP markers occur finally. The only kind of plausible evidence the child could use to hypothesize a head-initial COMP would be precisely the phenomenon Ortiz de Urbina is giving an account for by using an initial COMP. That is, the child could hipothesize a COMP initial if phenomenon *X* relies on a COMP initial. But then, it would be circular to use the hypothesized fact that

(8) The marginality of 1) and 2) can be stronger or weaker depending on the speaker (probably the dialect). Nevertheless, the gradation in acceptability seems to hold no matter how bad 1) and 2) are considered to be.

(9) Ortiz de Urbina's account is based on Altube's (1929) description of questions and focalization in Basque. Altube's work is normative in nature, its aim being to advise writers on the correct usage of Basque syntax. The description done in his book, although correct in some respects, has been revised by several scholars (Villasante 1979, Goenaga 1980, Mitxelena 1981, among others). With respect to WH-movement, Altube's claim that the WH-phrase has to be always left adjacent to the verb has been challenged among others by Mitxelena (1981), who points out that the left adjacency rule is often violated.

(10) It must be noted, however, that Goenaga (1984) and (1985) claimed that COMP is in fact final in Basque in his analysis of complementation and infinitival clauses.

COMP is first to motivate phenomenon *X*, without any other evidence supporting that hypothesis.[11]

3.2.1. Ortiz de Urbina's analysis of negation attempts to show that negation phenomena fall under this general account of WH–movement and focalization. In this analysis, the negative particle *ez* 'not' is generated adjoined to I. In order to account for the fact that in the case of negation, unlike in non-negated sentences, it is only the inflected part of the verbal complex that moves along with the negative particle, not the whole [VERB-AUXILIARY] complex (cf. (14)). Ortiz de Urbina stipulates that V adjunction to INFL is barred when negation is generated adjoined to INFL.

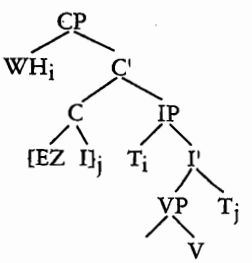
The account given by Ortiz de Urbina for synthetic verbs as opposed to the non-synthetic type is the following: the [VERB-AUXILIARY] type is claimed to be and adjunction structure where the lexical verb adjoins to the auxiliary, while synthetic forms are claimed to be created by 'amalgamation' structures, where the verb raises to the very head of I. He illustrates it as in (15), where (a) represents the structure of a synthetic verbal form and (b) represents the structure of a periphrastic form:

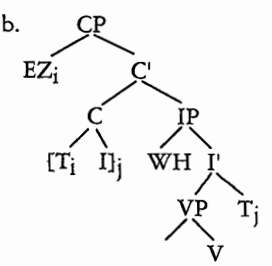
(15) a. 

b. 

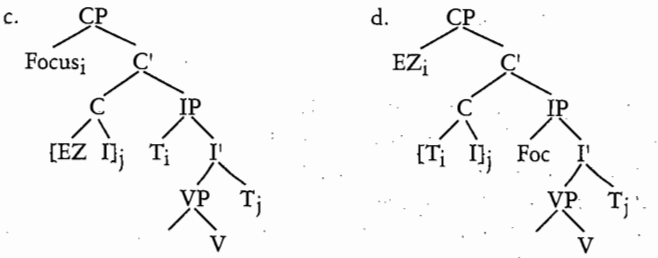
The raising of V would be barred in a structure like (b) but not in (a). The reasons why this should be so in the grammar are however left unexplained.

3.2.2. In Ortiz de Urbina's hypothesis, the negative element *ez* moves from its D-structure position in I, to the specifier of C if there is no other operator in the sentence that moves there. If there is one, either the negative element moves to the specifier, or the other competing operator moves there, in which case *ez* moves along with Inflection to the head of C. The operators competing with negation for the specifier of C in this analysis are WH-phrases and focalized constituents. Hence, there are four logical possibilities: in the case of a WH-operator (I) the WH-phrase sits in the SPEC and *ez* sits in the head of C, (II) the negative particle sits in the SPEC position and the WH-phrase stays in situ. The same two possibilities apply to a focalized phrase. The different representation are ilustrated in (16):

(16) a. 

b. 

(11) For an alternative analysis of Basque WH-movement involving a final C, see Uriagereka (1986) and Laka & Uriagereka (1986), (1987).



The representation in (b) is ungrammatical: WH-phrases must precede the negation. Ortiz de Urbina claims that this structure is to be ruled out at LF on the grounds that WH-phrases have to have scope over negation universally. The other three representations are grammatical. In the case of (c) and (d), the relative position of the operators (negation and focalized element) at S-structure determines their interpretation at LF.

3.2.3. Under this analysis, the particle *ez* has an ambiguous status with respect to X-bar Theory: it is generated adjoined to a head, but it can move either to a head position or to a specifier position. This latter movement goes against the Structure Preservation Hypothesis (Emonds 1976, Chomsky 1986b). The movement of negation, generated adjoined to I, is also problematic under the assumption that 'move alpha' cannot apply to a part of a head, but only to the whole; notice that the trace left by negation would fail to be antecedent governed in the following configuration:

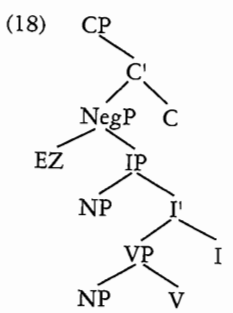
(17) $A_j \ldots_b [B\ t_j] \ldots$

Where A is the antecedent of the trace, the trace being adjoined to B, a head (Chomsky 1989).

Ortiz de Urbina's analysis considers only root clauses and it does not address the root/embedded asymmetry described in section 2. In the following section, I present an alternative analysis of negation movement which accounts for both root and embedded clauses in terms of S-structure head movement.

4. The analysis

4.1. Following recent work by Pollock (1989) on negation in English and French, I will assume that *ez* 'not' is a head projecting a NEGP. Unlike the unmarked case in this language, though, negation is initial instead of final. In Pollock's analysis, NEGP is the Complement of IP. The proposal here departs from that: NEGP takes IP as a complement in Basque. We will see later that this different placement of negation has empirical consequences. A negative sentence is generated in D-structure as in (18):



In this configuration, NEG and INFL sit at the two edges of the phrase markes; however, as we have seen in section (2), NEG and INFL must eventually merge toghether at some level of representation.

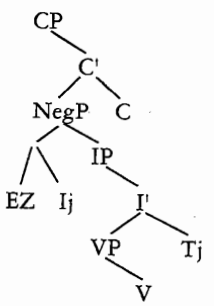
Suppose that NEG lowers to INFL. Under this hypothesis, a sentence where the lexical verb precedes [NEG-INFL] should be grammatical; as illustrated in (6a) this is not the case. In order to prevent that we would have to postulate that the lowering of negation forces a further movement of the verb somewhere to the left of INFL. This hypothesis is problematic in that it is difficult to imagine why the lowering of negation would force the verb to move leftwards obligatorily.

The other possibility for the merging of negation and INFL is raising of INFL to negation. This movement satisfies the Head Movement Constraint (Travis 1984).

(19) 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 next higher head; in this configuration, the trace 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 places in the mapping from D-structure to S-structure by raising of INFL to the negation head, as illustrated in (20):

(20) a.



It is this head movement that causes the 'dislocated' pattern of negative sentence illustrated in (6), and repeated here:

(6) a. *Etxea erori ez da
b. Etxea ez da erori
House-dt neg aux(3A) fall
'The house did not fall'
c. Ez da etxea erori

We can now account for this pattern: (6a) is ruled out because either negation has lowered to INFL or V has moved upwards, both movements being ungrammatical (see (3b) for independent evidence that upward movement of V to the left of INFL is out); (6b) and (6c) are both instances of adjunction of INFL to negation, the only difference between the two senteces being the fact that the former has a left dislocated argument, as in the cases given in section 1. (See section 5 for further discussion on this topic). The S-structure representation of (6b) is illustrated in (21):

(21) $\text{Etxea}_{i\ \text{NegP}}$ [ez $\text{da}_{j\ \text{IP}}$ [pro_i erori t_j]

As discussed above, movement of INFL to negation 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 description of the phenomena. Note though that we haven't established yet whether it takes place at S-structure, and, so far, no explanation has been provided as to what in the grammar induces a movement like this.

4.2. The Tense C-command Condition

In his analysis of English and French negation, Pollock (1989) suggests a universal requirement stating that negation must be c-commanded by INFL at S-structure. This requirement can be thought of as the only proper way to establish a syntactic relation between the event position in the sentence (INFL) (as in Higginbotham 1985), and the negation that operates on it.

Recent work on the nature of Inflection (Pollock 1989, Mahajan 1988, Ritter 1988 among others) indicates that what is standardly 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 is a separate syntactic projection. Based on this idea, I want to make Pollock's suggestion more specific and claim that all heads modifying the event must be c-commanded by Tense at S-structure. This requirement includes not only negation but also modals, truth value operators, agreement markers, aspect and the lexical verb.

Stating the requirement in terms of tense may give us a way of understanding why this element tends to be the highest one in the Inflection, and also for why modals and agreement markers, as well as sentence negation occur generally as structurally lower inflectional heads or as particles adjoined in INFL. Under Pollock's analysis of English and French negation, tense is the highest inflectional projection; the same is true in Mahajan's analysis of Hindi agreement and in Ritter's work on Hebrew. Basque verbal morphology also provides evidence for tense being the highest element in the inflected auxiliary (see Laka 1988). For the purposes of the present work, I will consider a subpart of this general requirement, which will be called Tense C-command Condition.

(22) Tense C-command Condition:
In a tensed sentence, sentence negation must be c-commanded by tense at S-structure.

In a configuration like (18), this c-command relation does not hold. We have assumed that NEG c-commands IP; hence, the only way in which the TNS element in INFL can c-command *ez* at S-structure is by adjoining to it, as in (20).

4.3. Negative Polarity Item Licensing

Let us now consider our assumption that NEG c-command IP in Basque. The evidence supporting this assumptions relies on 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. 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 the nearby sentence negation, the NPIs is interpreted as 'no(x)'.[12] English negation does not license subject NPIs, but it licenses object NPIs:

(12) 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 in this discussion.

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

These facts can be 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) proposed a supletion rule deriving NPIs from underlying positive counterparts, which applied to expressions preceded and commanded by an overt negation; Baker (1970 a, b), proposed also that the surface scope of negation determined the licensing of NPIs.[13] In the configuration in (18), negation c-commands all arguments in IP. This correctly predicts that Basque will allow NPIs in subject position, as illustrated in (19):

(24) a. Ez dio inork Mireni etxerik eman
neg-aux anybody-E Mary-D house-part give
'Nobody has given any house to Mary'
(Lit: anybody hasn't given any house to Mary')
b. Ez da inor etorri
neg aux anybody-A come
'Nobody came'
(Lit: anybody didn't come)

The data support the analysis proposed: *ez* does not lower to INFL at S-structure; instead, it is in a position where it c-commands the external argument of IP. Hence, the mergin of INFL and negation, in order to satisfy the Tense C-command Condition, can only be done by raising of INFL to negation.

4.4. On Learnability

One of the main objections presented in this paper against an initial COMP head in Basque was the problem it poses for the child acquiring the language. I have claimed the negation is an initial head in this language; thus, the same objection could be raised against this analysis. There is however a crucial difference between the two: The placement of the negation and the adjunction of INFL to it offer direct evidence to the language learner, and there is no counter evidence like in the case of the head of CP, discussed before, where the markers occur attached to the end of the auxiliary. In fact, the initial position of the negation head does not create a learnability problem, unlike the hypothesis of an initial C head. If the condition on negative polarity licensing is universal, as it seems to be, subject negative polarity items provide direct evidence to the child for the placement of negation. Since the child has overt evidence that subject negative polarity items are licensed, and since the licensing condition is universally c-command at S-structure, negation must be placed in a position where it c-commands the specifier of IP, as in (18). Similarly, the acquisition of the movement of the auxiliary is provided by the universal requirement that tense c-command sentence negation at S-structure.

(13) Baker's proposal also stated that NPIs could be licensed by entailment if the proposition entailed other proposition where the surface structure requisite was met.

5. Constituent ordering

In this section, I will consider in more detail the different argument orders illustrated in section 1. and 2. It will be shown that although sentence negation does not trigger any particular argument-shifting process, it provides some interesting evidence for the study of the different argument-order altering processes available in Basque.

Let us consider first instances of right and left dislocation as the ones illustrated in section 1.; recall that they were instances of base-generated dislocated arguments, connected with an empty pro in the argument position. For convenience, I repeat the examples given in (3) of section 1.:

(3) a. [pro_1 pro_2 pro_3 eman dio] $Mirenek_1$ $Joni_2$ $etxea_3$
b. [pro_1 pro_2 pro_3 eman dio] $etxea_3$ $Joni_2$ $Mirenek_1$
c. $Etxea_3$ $Joni_2$ [Mirenek pro_2 pro_3 eman dio]
d. [pro_1 Joni pro_3 eman dio] $etxea_3$ $Mirenek_1$

Uriagereka (1987) considers these cases; I will review his discussion here. De Rijk (1978) argued that left dislocation is not possible in Basque, based on the argument that an overt pronominal bound by the left-dislocated argument yields ungrammatical results, as in (25):[14]

(25) *Zalduna, herensugeak bera jan zuen
Knight-dt dragon-dt-E him eat aux(3A-3E)
(The knight, the dragon at him)

Uriagereka notes that this correlates with the facts discussed in Montalbetti (1984): an overt pronominal bound by a dislocated argument is ungrammatical when pro is an option. Thus consider the Spanish examples in (26):

(26) a. *Juan, María dice que él es inteligente
Juan, María says that he is intelligent
b. Juan, María dice que pro es inteligente
Juan, María says that (he) is intelligent

Sentence (25), parallel to (26a), can be compared to (27) which is the parallel of (26b), and the same contrast as in Spanish obtains:

(27) Zalduna, herensugeak pro jan zuen
The knight, the dragon ate (him)

As Uriagereka notes, the alternative of Topicalization as in Lasnik and Saito (1988) involves movement and therefore obeys subjacency; however, (28), which is perfect, shows that movement cannot be involved in these cases, since it would violate subjacency:

(14) It must be noted De Rijk's argument is perfectly consistent with the machinery he had at the time, and that the facts can be looked at in a different way now after work on the empty pronominal pro.

(28) Jon_i [Mirenek galdetu du [$nork_i$ [T_i pro_j ikusi duen]]
Jon Miren-e ask aux(3A-3E) who-e see aux (3A-3E)comp
'Jon, Miren asked who saw him'

Having stablished that it is the empty pronominal pro and not a trace what is involved in these cases, the next question to be discussed is the place where the overt argument is dislocated. In his discussion, Uriagereka (1987) notes that: "The details of Burzio's analysis [namely, adjunction to the right of VI] do not extend to Basque, where the post-posed argument must be adjoined, at least, to IP, since it appears linearly after the auxiliary form (and in fact, when there is COMP, after this element)" (Footnote 4.). This is illustrated in (29):

(29) a. $Herensugeak_i$ nor_j pro_i t_j jan du
Dragon-dt-E who eat aux(3A-3E)
'The dragon, who did it eat?'
b. Zaldunak esan du [[pro_i bera jan duela] $herensugeak_i$]
Knight-dt-E say aux(3A-3E) him eat aux(3A-3E)comp dragon-dt-E
'The knight said that the dragon ate him'

(29a) illustrates a case of left dislocation where the argument occurs linearly before the WH-phrase in the specifier of CP; wherever the argument is, it must be higher than CP or adjoined to it. (29b) displays an argument right dislocated in an embedded sentence, after the COMP marker. Again, the argument must be either adjoined to CP or somewhere higher, unless we assume that the COMP marker is not in its position but has lowered. Independently of the position of the COMP marker, though, the argument is clearly higher than IP. Based on the evidence in (29a), and on facts to be discussed below having to do both with argument ordering and the position of the head of COMP, I will take the position that the instances of right and left dislocation discussed here are always either adjoined to CP or in some higher projection.[15] The difference between these two choices is not relevant for this discussion, so I will leave it open.

With respect to sentence negation, nothing else needs to be said about these dislocated cases, once it has been established that they sit above CP. Negation phenomena take place below CP, between NEGP and IP. These dislocated arguments occur outside this domain as illustrated in (30):

(30) a. Mirenek [ez dio pro pro pro eman] etxea Joni
Miren-E neg-aux give house-dt Jon-D
'Miren did not give the house to Jon'
b. [Ez dio pro pro pro eman] Mirenek etxea Joni
c. Mirenek etxea Joni [ez dio pro pro pro eman]
d. Joni [ez dio pro pro pro eman] etxea Mirenek

(15) This higher projection might be a Topic Phrase, following Chomsky (1975). Note that the same data can be reproduced in Spanish, where dislocated arguments occur preceeding the Wh-phrase in the Spec of Comp:

(I) La escalera, ¿dónde está?
'The ladder, where is it?'
(II) Estos zapatos, ¿quién los ha comprado?
'These shoes, who has bought them?'

The examples in (30) do not present all possible combinations, only some of them, where all arguments occur dislocated. It is also possible to have some argument(s) dislocated and other(s) in their canonical positions, as in (31):

(31) a. Etxea$_i$ ez dio Mirenek Joni pro$_i$ eman
House-dt neg-aux Miren-E Jon-D give
'Miren did not give the house to John'
b. Joni$_i$ ez dio pro$_j$ pro$_i$ etxea eman Mirenek$_j$
c. Ez dio Mirenek pro$_i$ etxea eman Joni
d. Etxea$_i$ Joni$_j$ ez dio Mirenek pro$_j$ pro$_i$

Again, I do not show all possible combinations which are evidently many. They do offer the impression of a nearly non-constrained free word order. Notice though, that all these order possibilities surface from the sole use of argument dislocation; a devide known from the study of other apperently very different particular grammars such as English and Romance Languages. The sentence used in the examples above is given now in (32) with no dislocated arguments:

(32) [$_{Negp}$ ez dio$_i$ [$_{IP}$ Mirenek Joni etxea eman T$_i$]
Neg-aux Miren-E Jon-D house-dt-A give
'Miren has not give the house to John'

Although the cases discusses above account for a great deal of constituent order, they cannot possibly account for instances like the ones displayed in (33):

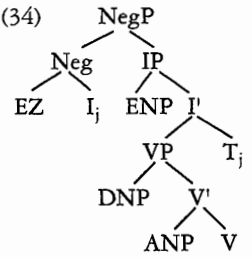
(33) a. Ez dio Mirenek etxea Joni eman
Neg-aux Miren-E house-dt Jon-D give
'Miren did not give the house to John'
b. Ez dio etxea Joni Mirenek eman
c. Ez dio Joni Mirenek etxea eman
d. Ez dio etxea Mirenek Joni eman

The examples in (33) do not follow the canonical pattern in (32), nor are they instances of the dislocation process illustrated in (25) to (31). In the case of arguments intervening between [NEG-INFL] and the verb, as in (33), it is yet to be explained why orders different from the cannonical ergative-dative-absolutive can occur.

Let us now address this question. The configuration in (34) illustrates the base-generated argument-structure[16] (ENP stands for the ergative argument, DNP for the dative argument and ANP for the absolutive):

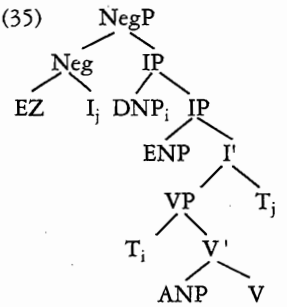
(16) The question whether the dative sits in the specifier of VP or outside it while it is the absolutive that sits in the specifier of VP (as in Uriagereka 1987) does not make a difference for this discussion. Whatever the instantiation of the phrase structure is, there is general agreement on the fact that the relative hierarchy of the arguments is as shown in (34).

(34)



The option of topicalization of any argument in the sense of Lasnik & Saito (1988), via adjunction to IP as in (35), would certainly generate all possible orderings of constituents within IP, some of which have been shown in (33):

(35)



Notice, however, that topicalization creates a barrier for head movement. Thus, take the ungrammatical (36), which has the same configuration as (35) in the relevant respects:

(36) $Did_{j\ IP}$ [the $book_{i\ IP}$ [John t_j see t_i]]]

Topicalization creates a barrier for head movement. Nevertheless, the data show that the scrambling process I am now considering, whatever its nature is, does not block the movement of INFL to NEG. Therefore, the cases we are considering do not seem to be instances of topicalization. I will instead argue that this 'scrambling within IP' (that is, an order-altering process that is independent from left and right dislocation cases as the ones illustrated and discussed through examples (25) to (32)), is an instance of adjunction to VP: a well known process in Romance languages. Note incidentally, that this process is independent of sentence negation, in the sense that it is not induced by it. However, in the case of Basque, the presence of negation allows us to distinguish instances of right and left dislocation discussed before from the VP adjunction phenomena now under consideration.

In the spirit of the analysis of subject inversion proposed by Rizzi (1982), where the overt subject adjoins to VP and the specifier position of IP is filled by an expletive pro, I will suggest that the same option is available in Basque. However, the site of adjunction is not to the right of the VP as in Romance, but to the left of VP. Note that this correlates with the different head parameter in Romance and Basque. Romance is head initial, and arguments adjoin to the right of the VP; Basque is head final and arguments adjoin to the left of VP. This mirror effect is illustrated in (37):

(37) Romance/ OV order:
a. pro_i [[[$_{VP}$ [$_{VP}$V NP] NP_i]
b. *pro_i [[[$_{VP}$ NP_i [$_{VP}$V NP]]
Basque/ OV order:
a. *pro_i [$_{VP}$ [$_{VP}$NP V] NP_i]]]
b. pro_i [$_{VP}$ NP_i [$_{VP}$NP V]]]]

The pattern ilustrated in (37a) is available to all pro-drop Romance languages; however, some of them, like Spanish, for instace, seem to have the option of adjoining verbal arguments to VP as well. Thus, Spanish displays a VP internal scrambling process, which can involve the subject argument (provided it is inverted) and other verbal arguments. Consider the following cases:

(38) a. Ayer le dió un libro a María Juan
Yesterday 3D give3A a book to Mary Juan
'Yesterday Juan gave a book to Mary'
b. Ayer le dió Juan a María un libro
c. Ayer le dió a María un libro Juan

These facts do not hold of Italian, where the inverted subject and the verbal arguments cannot switch places. Whatever the exact characterization of this process is, it is similar to what goes on in Basque: the option of adjunction to VP is available to the subject and to all verbal arguments; in Spanish, a VO language, this adjunction must be to the right, and in Basque, an OV language, this adjunction must be to the left, as in (37). It is not a straighforward matter whether in Spanish this constraint on adjunction holds for all constituents or only for arguments and not for adverbs. It does holds in Basque for any constituent; all VP right-adjunctions are ungrammatical, as shown in (39):

(39) a. *Etxea [$_1$, [$_{VP}$ [$_{VP}$ erori] gaur] da]
b. Etxea [$_1$, [$_{VP}$ gaur [$_{VP}$ erori]] da]
House-dt fall today aux(3a)
'The house fell down today'

The facts in (39) hold of all adverbs, and also of arguments (as illustrated in (4b), section 1.2.). I will not pursue this matter any further, for it is in itself a whole area of research that cannot be properly addressed here. For the purposes of the present work, it is enough to point out that there are at least two different processes at play in the intricated area of word order in Basque: one in left and right dislocation as argued in Uriagereka (1987), where the constituents adjoin somewhere higher than CP; the other is left adjunction to VP, as illustrated here. Negation does not induce any of them, but it provides evidence for distinguishing the two, and none of them are particular to Basque, but present in other languages as well.

6. Embedded clauses

So far, I have accounted for root clause negation and I have addressed constituent order facts; let me now turn to embedded clauses, where sentence negation shows a different pattern. As the description in section 2.2. illustrates, embedded negative

sentences display a different pattern from the one in matrix clauses, discussed above. In order to ease the exposition, let us recall briefly what the two patterns look like:

(40)	NON-NEGATIVE	NEGATIVE
a. MATRIX	[V-I] / * [V_{XYZ} I]	[V-neg-I] / [neg-I $_{XYZ}$V]
b. EMBEDDED		[V-neg-I] / * [neg-I $_{XYZ}$ V]

Where x, y and z stand for X^{max} categories.

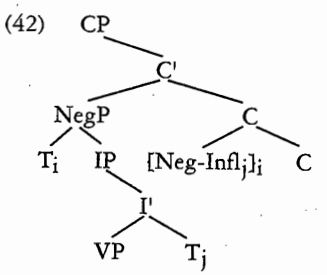
Appart from the negation facts illustrated in (40), the only overt difference between root and embedded clauses is the ocurrence of a COMP marker in the latter. The complementizer is a morpheme, and it occurs attached at the end of the inflected verb. Hence, (40b) is more accurately described as in (41):

(41) a. [V-Neg-Infl-Comp]
b. *[Neg-Infl-Comp xyz V]

As shown in section 2.2. (example (10)), not all COMP markers behave alike with respect to negation; furthermore, as illustrated in section 2.3., CP operators do not play any role in negation phenomena. With this is mind, it is natural to assume that it is the head of C that is making the difference in embedded sentence negation.

I will argue that in embedded clauses the same processes as the ones 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 the latter. The derivation is illustrated in (42):

(42)

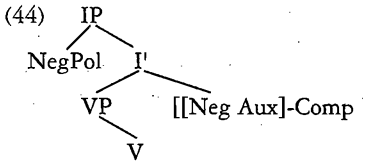


As in root clauses, and for the same reasons discussed in section 4. (namely, in order to satisfy the TCC), INFL raises to negation also in embedded sentences (42a). However, the head of C is filled by a bound morpheme that has to be attached to INFL at S-structure; therefore, the head [NEG-INFL] raises to COMP (42b). Notice that this movement does not alter the S-structure scope properties of the negation head, since from that position it still c-commands IP. This accounts for the fact that subject Negative Polarity Items are also licensed in embedded sentences:

(43) [Inork pro t eman ez dion] etxea da hori
Anybody-E give neg aux(3A-3D-3E)comp house-dt is that
'That is the house that nobody gave (her-him)'
(Lit: 'That is the house that anybody didn't give (her/him)'

The licensing of subject polarity items in embedded negative sentences provides a strong independent argument for a final COMP. Under a COMP initial hypothesis, there are two logical possibilities for analyzing embedded negation phenomena, under the assumption that negation is generated adjoined to INFL (see section 3.): One would be to argue that in embedded sentences [NEG-INFL] does not raise to COMP, to explain the order [V-NEG-INFL], and that the COMP marker has lowered to INFL. But then, negative polarity facts would have to be explained in terms other that the standard c-command relation at S-structure. This alternative is illustrated in (44):

(44)



The second option would be to say that V raises to INFL, where negation is generated, and that the whole complex [V-NEG-INFL] raises to COMP while the negative polarity item sits in the specifier position of CP. But then, some extra proviso would be needed to account for the fact that, under this analysis, negation barrs adjunction of V to INFL in matrix clauses (see section 3.2.1. and 3.2.2.) but not in embedded sentences; and the licensing of negative polarity items would still have to be explained in terms other than S-structure c-command.

Under a COMP final hypothesis, both surface head-ordering and negative polarity licensing are acounted for straightfordwardly, 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 (40) and section 2.2., and no further stipulation is needed to account both for surface constituent ordering and negative polarity licensing.

The subject negative polarity 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 IP. Whatever the particular instantiation, negation is structurally lower than INFL.This explains why NPIs in the specifier of IP are not licensed by negation. However, if negation cliticizes to 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 NPLs are licensed in English:[17]

(17) Jim Harris (p.c.) points out a dialect of American English where modals show up linearly before the subject, probably in the head of Comp; in these cases, if negation goes along with them, subject NPIs are licensed, even though the sentence is not interrogative but affirmative:

(I) Can't anybody do it

The sentence is the equivalent of standard English 'nobody can do it'.

(18) Notice also that it supports the claim in Baker (1985) that in a head-adjunction configuration, the adjoined element is able to c-command outside the head. That is to say, in a configuration like (I),

(I) [X] Y] ZP]

Both X and Y have the same c-command relation with respect to ZP.

(45) a. Who doesn't anybody like
b. *Who does anybody not like

The examples in (45) constitute a minimal pair for the relevance of negative polarity items to determine S-structural relations. They provide further evidence for INFL to COMP movement being a S-structure phenomena, as opposed to a hypothesis in terms of PF movement.[18]

The source of the matrix/embedded clause asymetry displayed by Basque sentence negation is this movement to COMP, which takes place only in embedded sentences, where there is an overt complementizer morpheme. Crucially, it is the fact that negation is initial what creates the 'dislocated' pattern in matrix clauses, and the fact that COMP is final what 'restores' the usual surface linear order, where the verb is followed and not preceded by the inflected auxiliary.

7. Further issues on embedded sentence negation

As mentioned in section 2., there is one type of embedded clause that appears to behave like a matrix clause in many speakers' judgements. This is the case of embedded sentences taking the complementizer *-(e)la*. Typically, this C marker occurs with verbs of saying; it is the equivalent of English *that*. The facts are that the speakers we are now considering find (10b) perfectly grammatical, and do not use (10b):

(10) a. Mirenek esan du [etxea erori ez dela]
Mary-e say aux(3A-3E) house-dt fall neg aux(3A)comp
'Mary said that the house didn't fall down'
b. Mirenek esan du [etxea ez dela erori]
Mary-e say aux(3A-3E) house-dt neg aux(3A)comp fall
'Mary said that the house didn't fall down'

The contrast between (10a) and (10b) is parallel to the one we have been studying in matrix and embedded clauses. However, it must be pointed out that there is a major difference in the grammatical status of the examples in (10) as opposed to the starred examples in (6) and (8) in section 2.: Whereas the latter are fully ungrammatical, either (10a) or (10b) are at most odd for the speakers of the opposite dialect, but do not deserve a star. This indicates that although the case looks identical in the surface to the phenomena involved in matrix/embedded clauses discussed above, there is some divergence, which results in the different grammaticality judgements involved. I will now attempt to give an account of these facts, keeping in mind the different grammatically degree involved.

It is worth pointing out that in different languages, the clausal complements of verbs of saying present frequently a special behaviour, compared to other types of clausal complements. Thus, in English, *that* complement can be deleted optionally, and in some germanic languages *that* type clauses behave like root sentences with respect to verb second. It appears that among the various complementizers, it is *that* (or its equivalent) the one that tends to act as 'deletable' or empty. The reason for this may be found in the semantic content of the complementizers in natural languages.

If, in the spirit of Bresnan (1970), we think of complementizers as a matrix of features that are relevant for the interpretation of the sentence,[19] we expect there to

(19) As opposed to the view maintained in previous work, where complementizers where inserted via transformations and were considered semantically empty (Cf. Bresnan 1972 and references there).

be different meanings assigned to different complementizers: thus, the complementizer of a matrix sentence is generally an empty matrix that does not get phonetically realized,[20] whereas embedded sentence complementizers have at least the feature [+embedded]. Indirect question complementizers are also be specified for [+WH] and some other complementizers may have further specifications in their feature matrix. It can therefore be argued that complementizers like *that* in English or *-(e)la* in Basque which are only specified for [+embedded], are more easily 'deletable' at LF and PF without affecting the spirit of the Full Interpretation Principle.[21] Hence, these complementizers may be treated as null also at S-structure.

I will take the position that the pattern displayed by the *-(e)la* complementizer in Basque is accounted for under this assumption. Thus, some speakers treat it as a full complementizer, so that INFL must raise to it at S-structure as in the case of the other, more full fledged complementizers. Those speakers, for whom *-(e)la* clauses conform to the pattern of matrix clauses, however, take this complementizer to be semantically empty. In this latter case, it is the morpheme *-(e)la* that lowers to INFL via affix hopping. The fact that either option would not affect any crucial part of the grammar makes either option preferred but does not rule out the other one completely; the non prefferred one is thus felt at most odd, but not strongly ungrammatical.

8. Summary

Throughout the discussion in the previous section of this paper, I have discussed two kinds of issues: on the one hand, I have made a proposal for the nature of the phenomena found in Basque sentence negation, and I have also explored some general properties of sentence negation in natural languages. On the other hand, along with the former questions, some independent properties of Basque Grammar have arised, which I have discussed as well. Most of these latter phenomena involved heads and relations among them: the lexical verb, Inflection, Negation and COMP.

Let me consider the relation between V and INFL. I have argued in different parts of this paper that V to INFL raising does not take place at S-structure in matrix nor in embedded clauses in Basque. This explains why only the inflected part of the verbal complex, namely Inflection, is involved in the movements studied, whereas the Verb stays unaffected; that is, it accounts without stipulations for the fact that the inflected auxiliary and the lexical verb occur separated in root negative sentences. In the case of non-negative sentences, as claimed in section 1.2., the null hypothesis is that V

(20) Interestingly, there are cases where the matrix complementizer is overtly realized, if it has the feature [+Wh]. For instance, in Catalan and some dialects of Spanish the complementizer *que* occurs in its/no questions:

(I) Que te aburres
That you-cl are bored
'Are you bored?'

Similarly, some eastern dialects of Basque show a verb final particle *a* in matrix yes/no questions which may be a Comp marker, similar to the Spanish and Catalan one:

(II) Aspertzen zare-a
Bore aux(2a)a
'Are (you) bored'

(21) Assuming that the fact that the sentence is an embedded one can be read directly from the structural configuration at LF, since the empty C node is dominated by a higher verb, unlike in the case of a matrix verb where nothing dominates it.

raising to INFL does not take place either; the adjacency displayed by these two heads, illustrated in (5), would be a consequence of the Binary Branching condition (as in Kayne 1987) and the impossibility of adjunction to the left of VP in Basque as discussed in section 5. It is solely in the case of the synthetic verbal forms illustrated in example (5) (section 1.), that V raising to I does take place at S-structure, yielding a single morphological and syntactic unit (cf. section 1.2.) which undergoes all processes the inflected auxiliary does in the case of non-synthetic forms. Under this account, the two types of verbs (synthetic and non-synthetic) are derived straightfordwardly: one type is the result of head movement as in Baker (1988); the other results from V and INFL staying in their D-positions without merging. There is no need for distinguishing different types of head movement (cf. section 3.2.1.) which would yield different structures. Instead, Basque verbs are just an instantiation of syntactic head movement: a universally uniform process, as argued extensively in Baker (1987) and (1988).

Negation provides further evidence for a final COMP in Basque, and for the fact that INFL to COMP movement takes place in embedded clauses but not in matrix sentences. Recall that, although negation phenomena provides independent evidence for it, the movement itself is independent from negation and not induced by it. The null hypothesis, therefore, is that this INFL to COMP movement also takes place in non-negative sentences, since the motivation for it is not negation itself, but some more general principle to be discussed below that must be satisfied universally. As in the case of V and INFL the fact that INFL and COMP are final in Basque yields the same surface order both in root and embedded clauses when negation is not present. The fact that negation is an initial head where INFL raises to, is what makes it a test case where the lack or existence of the movement can be overtly observed.

Movement of INFL to COMP is a well attested instance of head movement. Probably, the best studied case of INFL to COMP movement is what is usually called Verb Second phenomena in Germanic languages (Koopman 1984, Travis 1984). In these languages, INFL to COMP movement takes place, in general, in root sentences, not in embedded clauses. This particular instance of INFL to COMP movement, hence, displays exactly the opposite pattern from the one argued for in this paper, where I-C movement takes place in embedded clauses (see section 2.2.), but not in root sentences. This mirror image of I/C movement is not a random fact; it correlates with another property: Germanic complementizers are full words, whereas Basque complementizers are bound morphemes. I will argue that this distinct status of the complementizers is tightly related to the different patterns of I-to-C movement in these languages.

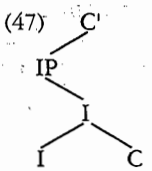
Since stated in Lasnik (1981), the following morphological principle has been followed in different works on inflectional morphology:

(46) A morphologically realized affix mist be realized as a syntactic dependent at surface structure (where surface structure is taken to be S-structure).

Complementizers in Basque are affixes: they cannot occur independently, without being attached to an auxiliary. They are also generated higher than the independent element they attach to. Therefore, only two strategies are available for the affix to attach to the independent element: a) Lowering of the affix to the element it attaches to (as in Chomsky 1957), or b) raising of that element to the position of the affix by head movement (Baker 1985). Under the assumption that Universal Grammar contains some principle or principles to the effect of the Full Interpretation Principle (FI) (as in Chomsky 1986a) by which at PF and LF all elements must receive an appropriate

interpretation, it follows that the complementizer must be visible for interpretation at LF. Furthermore, assume the Principle of Least Effort (Chomsky 1987), which states that the grammar choses the shortest possible derivation. With these assumptions in mind, it follows that INFL must raise to COMP whenever there is an overt complementizer sitting there. Thus, suppose that the COMP affix lowers to INFL at S-structure: this movement cannot leave a trace, because the ECP would be violated. Following Lasnik & Saito (1984), suppose further that movement leaves a trace only when it is required. The complementizer could lower not leaving a trace. Hence, no chain is formed; the resulting adjunction structure is:

(47)



At LF, FI requires that COMP be identified. However, the COMP affix is not conected to its position through a chain; neither can it raise back to it alone because it is already adjoined to a head and it would violate any version of the Lexical Integrity Hypothesis. Movement of the whole head will not allow the identification of COMP either, because syntax cannot read 'into' the head. The only possible derivation is for INFL to raise to COMP. However, in matrix clauses where there is no overt morpheme in COMP, nothing requires INFL to raise.

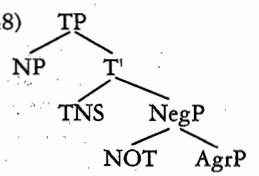
The case of Germanic languages is different in this respect: the complementizers are not subject to the requirement in (46); movement of INFL to COMP here is a case of substitution, not of adjunction. Hence, by the Full Interpretation Principle, this substitution is only possible when no overt complementizer sits in COMP. What the motives are for INFL to raise to COMP in Germanic when that head is empty is a totally different issue, which will not be addressed here.[22]

9. Conclusion

Under the analysis proposed in this paper, there is a main difference between sentence negation in Basque and English: one is a case of sentence initial negation, where NEGP takes IP as a complement, and the other is a case of sentence internal negation, where IP takes NEGP as a complement (Pollock 1987). As argued in sections 4 and 6, certain empirical results follow from this different structures.

It has been argued, for example, that there is a tight relation between the licensing of the subject negative polarity item and the placement of negation with respect to IP; thus, let us consider Pollock's (1987) phrase structure of English:[23]

(48)



(22) For this specific question, see Uriagereka (1987).

(23) Although notice that the argument follows equally if we assume that negation is adjoined under I.

Negation does not c-command the subject NP, even if it raises to Tns, since Tns' (or I') is intervening. Therefore, a negative polarity item (NPI) in subject position cannot be licensed. The only way a subject NPI can be licensed is if negation moves along with INFL to COMP. The licensing of subject NPI depends crucially on the status of negation with respect to IP; hence NPI licensing becomes a basic test ground in determining whether negation is higher or lower than IP.[24]

In Spanish, sentence negation linearly precedes the inflected verb; however subjects NPIs are not licensed. By NPIs I do not refer to elements like *nadie, nada* which have an inherent negation and can occur in subject position, but to constituents like *un alma* 'a soul', which must be licensed by negation. Consider the following paradigm:

(49) a. No ví un alma
Neg see one soul
'(1) didn't see a soul'
b. *Un alma no vino
A soul neg come
(A soul didn't come)

We can deduce from these data that negation in Spanish is not projecting a NEGP higher than IP; on the contrary, it appears that it is either adjoined to I or to I'. In both positions, negation is no able to c-command the external argument of IP. Crucially, however, it is c-commanded by TNS, satisfying the Tense C-command Condition.

Under the assumption that the Tense C-command Condition (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 case.[25]

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

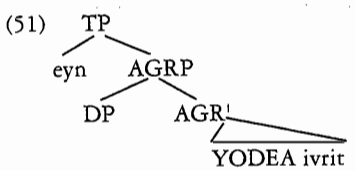
(50) a. Eyn Dani yodea ivrit
Neg Danny knows Hebrew
'Danny doesn't know Hebrew'
b. *Eyn Dani yada ivrit
Neg Danny knew Hebrew
('Danny didn't know Hebrew')
c. *Lo Dani yada ivrit
Neg Danny know Hebrew
('Danny didn't know Hebrew')
d. Dani lo yada ivrit
Danni neg knew Hebrew
'Danny didn't know Hebrew'

(24) Linebarger (1987) claims that for a NPI to be licensed by negation it must occur in the immediate scope of negation at LF. Following standard assumptions, she assumes that negation raises to IP at LF. Notice that in such a configuration the specifier of IP is in the immediate scope of negation; therefore, a NPI in that position should be licensed in English if the requirement were to hold at LF.

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

Example (50a) 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 infinitives, gerunds and what are called 'benoni' verbs. Berman (1978) distinguished 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 (51):

(51)



Therefore, the example in (50a) 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 or Romance: it is an adjoined particle c-commanded by TNS at S-structure, thus the ungrammaticality of (50c), where it is not c-commanded by TNS.

The analysis of Basque sentence negation presented in this paper crucially relies on two independent factors: Negative Polarity Licensing and the Tense C-command Condition. Both are claimed to meet universally under c-command at S-structure.

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