ON THE (IM)POSSIBILITY OF PROSODIC FOCUS MARKING IN EMBEDDED CONTEXTS IN NORTHERN BIZKAIAN BASQUE

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1. Introduction*

The present paper starts out from the generalization that in Basque a phrase which occurs to the immediate left of the verb is potentially interpreted as focus, and besides, it receives prosodic prominence (cf. Altube 1929 and the literature thereafter).[1] Given this correlation, I will refer to this prominence as 'focal stress' (Hualde, Elordieta & Elordieta 1993, 1994). More in particular, the paper dwells on the fact that in certain dialects of Basque assignment of focal stress to a preverbal element fails to apply in embedded adjunct clauses. However, interestingly enough, focal stress assignment *does* apply in embedded propositional complement clauses. This seems to suggest an explanation in terms of the well-known adjunct-argument asymmetry. In order to account for these data, I provide a syntactic analysis which fundamentally bears on the structural position occupied by complement and adjunct clauses, and on the notion of 'focus set', which is based upon Cinque's (1993) and Reinhart's (1995) account of focal stress assignment.

2. The data

Stress assignment in Basque varies among different dialectal areas, and in certain cases, such as the pitch accent systems found in Northern Bizkaian, the differences are even greater. The data analyzed in this article will be based on this accentual system.[2]

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* The object of study of this research article was inspired by Dr. de Rijk's influential works on focus, word order and related issues of Basque syntax. His large contribution in all aspects of Basque Linguistics has guided many of us in our work in one way or another. For all this it is an honour to show him our sincere acknowledgement.

[1] I want to thank Gorka Elordieta for useful discussions on many of the issues analyzed in this article, as well as for his comments on an earlier version of the paper. Part of the material discussed in this paper stems from a joint talk given at the University of the Basque Country in May 1999 (Elordieta & Elordieta 1999). I also thank Xabier Artiagoitia for his comments on an earlier version of this article. As usual, all remaining errors are my own. This research has been funded by grant BFI01.415 from the Department of Education, Universities and Research of the Basque Government, and partially funded by a grant from the University of the Basque Country to the project 9/UPV 00027.130-13587/2001.

[2] The ortography I have used to write the examples in the text follows the standard pattern of Basque, respecting the etymology of words, but reflecting the morphological changes characteristic of these varieties.

2.1. Main prosodic prominence

In Northern Bizkaian, there is a fundamental distinction between accented and unaccented morphemes.[3] Pronounced in isolation or under focus accentuation (see (1) below), unaccented morphemes receive a phrase-final accent, which speakers perceive as the most prominent accent in the sentence. However, if they are not phrase-final, unaccented words are not stressable at all. This is shown in (1):

(1) a. sagarrà erosi dot
apple.DET buy AUX
"I have bought an apple"

b. sagar ustel.à erosi dot
apple rotten.DET buy AUX
"I have bought a rotten apple"

The word *sagarra* 'the/an apple' is unaccented, and receives phrase-final stress when occurring in immediate preverbal position, as in (1a). When the DetP is more complex, and the (unaccented) adjective *ustela* 'rotten' is added to the noun *sagar*, as in (1b), it is the adjective (plus the determiner) which receives phrase-final stress, as expected, given that the adjective is the final element in the Determiner Phrase. As a result, *sagar* remains unaccented.

On the other hand, besides unaccented words, in the accentual systems under discussion there are lexically accented words, which are stressed on a given syllable in all syntactic contexts (the penultimate syllable in the variety under discussion), regardless of whether they occur in phrase-final position or in absolute preverbal position (see Azkue 1923-25, 1930-1931, Hualde 1997, 1999, Hualde, Elordieta & Elordieta 1994, Elordieta 1998, in press):

(2) a. liburúa ekarri dot
book.DET bring AUX
b. libúru barrià ekarri dot
book new.DET bring AUX
"I have brought the new book"

c. Libúru barria nèuk ekarri dot
book new.DET I.erg bring AUX
"*I* have brought the new book"[4]

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[3] I use the term 'morpheme', because both stems and derivational and inflectional morphemes have independent accents. Thus, when the stem is unaccented and the attached morpheme is accented (or can assign stress to a preceding syllable), the final word will be accented:

(i) mendi.a + -ak *-> mendíak
mountain.DET pl. (the) mountains

When the stem is accented, the resulting word will be accented as well, regardless of whether the following morpheme is accented or not:

(ii)a. mendíak + -ri-> mendiári
mountains DAT to the mountains
b. mendíak + -tik*-> mendietátik

Finally, when the stem is unaccented, and the attached morpheme is also unaccented, the resulting word will present a tonal rise on the second syllable and a high tone plateau up to the final syllable, after which the tone drops. It is this drop in pitch on the last syllable that is perceived as prominent (we mark this accent by a non-acute accent):

(iii) mendi.a + ra-> mendirà
mountain.DET to to the mountain

[4] Henceforth, in the English translations of the Basque examples I will mark narrow focus in italics.

As can be seen in (2b) and (2c), the lexical accent of *liburúa* does not get suppressed when it is not in absolute preverbal position.[5] This contrasts with unaccented words, which only get stressed when they are in absolute preverbal position (that is, in the canonical focus position). It is noteworthy signalling that prosodic prominence in these dialects is realized primarily by means of pitch. Prominent syllables are phonetically realized by a sharp drop in pitch from a high tone to a low tone (Hualde 1991, Hualde, Elordieta & Elordieta 1994). As an illustration, consider again the sentences in (2a-b), which would have the following intonational contour (H represents the rise in pitch on the accented syllable whereas L represents the sharp drop which spreads onto the following syllable):

(3) a. li-bu-rú-a ekarri dot
H*L

b. li-bú-ru ba-rri-à ekarri dot
H*L H*L

At the sentence level, then, we may find phrases containing only unaccented words, or phrases containing both lexically accented and unaccented words. In the former case, the element bearing phrase-final stress is assigned main prominence. In the latter case, the rightmost word contained within the phrase occupying a preverbal position receives the most prominent stress of the sentence, which we may call sentence or focal stress. The picture that arises, then, is that sentence stress in Basque falls on the word immediately preceding the finite verb. Given that this position is the canonical position where focused items appear in Basque, it seems plausible to conclude that sentence stress will fall on the rightmost word embedded in the phrase which constitutes the focus of the sentence. This seems to be universally valid (cf. Chomsky & Halle 1968, Chomsky 1971, Dezsö 1982, Cinque 1993, Reinhart 1995, Zubizarreta 1998, among many others). In fact, there is interesting work made on the relation between the location of sentence stress and word order typology that makes a number of predictions for the sentence stress pattern of SVO and SOV languages, according to the position where neutral focus occurs (cf. Dezsö 1974, 1982, Harlig & Bardovi-Harlig 1988, Kim 1988). Specifically, the predictions are that in SVO languages main stress will fall on the rightmost element to the right of the verb, whereas in SOV languages sentence stress is placed on the element immediately preceding the verb, yielding the patterns in (4a) and (4b), respectively:

(4) a. S V (Y) (Z) **X** b. S (Y) (Z) **X** V

[5] The location of the stress of lexically accented words varies among the local varieties sharing this accentual system: in some varieties the accent may fall on different syllables, according to the accentual properties of derivational and inflectional morphemes, whereas in other varieties, the accent of lexically accented words always falls on the penultimate syllable (see Hualde 1997, 1999 for a detailed thorough overview of Basque accentuation). Notwithstanding, all dialects draw a clear-cut distinction in stress placement of lexically accented words and unaccented words. The specific prominent patterns illustrated in (2) and throughout this article correspond to the variety of Northern Bizkaian spoken in Lekeitio (see Hualde, Elordieta & Elordieta 1994, Elordieta 1997a, 1998 for an extensive study of this accentual type), but the facts and generalizations apply to all Northern Bizkaian dialects.

It is not an arbitrary fact that the usual place of focus in the two types of languages coincides with the location of main sentence stress. Accordingly, assuming that Basque is an SOV language (de Rijk 1969, and the literature thereafter),[6] it follows that sentence stress falls on the element immediately preceding the verb.

2.2. Main stress and focus

Within the generative framework, the issue of sentence stress assignment has been related to surface constituent structure. Since Chomsky & Halle's (1968) formulation of the Nuclear Stress Rule, it has generally been assumed that constituent structure determines the location of the main stress in a language, but, in addition, it has also been assumed that some language-specific rules must be taken into consideration, in order to derive the phrase stress systems across languages. Thus, in English and Italian the most prominent stress falls on the rightmost constituent, but in German the stress pattern differs depending upon whether the structure is V-final or V2.

Cinque (1993) reconsiders these ideas and argues that no language-specific rules are necessary at all. He claims that the unmarked pattern of main sentence stress can be entirely determined on the basis of surface syntactic constituent structure, and that any difference in the assignment of sentence stress across languages should follow from the branching direction of the languages in question. Instead of parametrizing the nuclear stress rule (cf. Halle & Vergnaud 1987), Cinque proposes a universal sentence stress algorithm which will apply in every language provided that we know what the direction of branching (i.e. recursion) is in a language.[7] The stress algorithm may be informally formulated as follows:

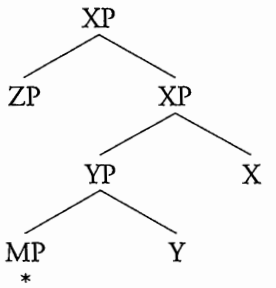
(5) The main stress of a sentence falls on the most embedded element on the recursive side of the tree

In terms of linear order, the most embedded phrase generally is also the rightmost one to the left or right of V, depending upon the direction of selection. Thus, one could define the most prominent element as the rightmost one (cf. Nespor and Vogel 1986, Nash 1995, Costa 1998). The application of (5) can be represented as in (6a) and (6b) for left- and right-branching languages, respectively (the asterisk indicates the location of main stress):

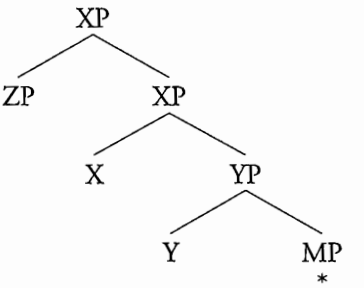
[6] But see Hidalgo (1994, 1995) for a criticism to this statement from a statistical perspective.

[7] For the sake of clarity, I should make clear that I am not assuming a universal Spec-head-complement order, as is proposed in Kayne (1994). As is argued in Elordieta (2001), there are a number of phenomena related to focus and stress which are easily captured under an OV-analysis for Basque, but remain unaccounted for under a VO-analysis. In other words, I assume that left-branching is as legitimate as right-branching. This assumption is independent from and does not enter into contradiction with the claim, defended in the antisymmetric framework, and also adopted here, that rightward movement is excluded (cf. Haider 1994, 1997, Elordieta 2001).

(6) a.



b.



In the light of (5), the stress pattern of English and Italian follows straightforwardly. Sentence stress in these languages falls on the rightmost element under normal intonation, as expected, given that they are right-branching languages (cf. (6b)). Likewise, in left-branching languages, such as Basque, main prominence is assigned to the leftmost embedded element, which coincides with the rightmost element to the immediate left of the verb (cf. Nespor and Vogel 1986, Nash 1995). In the case of sister nodes, Cinque proposes that the most embedded constituent is the one which occurs at the recursive side of the tree. Thus, in transitive structures, main stress will be assigned to the direct object in both OV and VO languages. However, in ditransitive constructions the placement of main stress is different in each type of language: in Basque it falls on the direct object, whereas it falls on the prepositional object in English. As is argued in Elordieta (2001), this difference derives from the fact that in Basque the direct object is hierarchically lower than the indirect object, while in English prepositional dative constructions the hierarchical relation between the two objects is reversed (cf. Barss & Lasnik 1986, Larson 1988, among others). This is illustrated in the following examples from Basque and English (the words in bold face indicate the constituent bearing main stress):

(7) a. Amaiak bere lagunari **disko bat** oparitu dio
Amaia.ERG her friend.DAT CD a give AUX

b. Amaia has bought a CD **for her friend**

In addition to the association between sentence stress and constituent structure, there is an important correlation between main stress and focus. As has often been noted, the absolute prosodic prominence of a sentence falls on the last word contained in the phrase that constitutes the focus (cf. Chomsky 1971, Jackendoff 1972, Selkirk 1986, Rochemont 1986, among many others). That is, the phrase receiving main stress is generally interpreted and identified as focus.[8] Accordingly, we pronounce the sentences in (7) with clear prominence on the object, which is interpreted as focus. Note, however, that the stress pattern of the examples in (7) is perfectly compatible with a reading according to which the entire sentence expresses new information, e.g.,

[8] For present purposes, I will use 'focus' to define the part of a sentence which expresses new information, or, more in general, that part which provides information assumed by the speaker not to be shared by the hearer (Jackendoff 1972).

in out-of-the-blue contexts. This is a well-known ambiguity in the interpretation of focus in unmarked utterances, which are pronounced with a neutral focus intonation (cf. Chomsky 1971, Jackendoff 1972, Rooth 1985, Vallduvi 1992, Cinque 1993, Reinhart 1995, among others). Cinque (1993), and with more detail, Reinhart (1995), derive this ambiguity from the fact that all the phrases containing the most deeply embedded constituent qualify as potential focus. This is so because the set of the possible neutral foci of a sentence is determined by the same rule that assigns sentence stress, namely, by identifying the constituent bearing main stress (i.e. the most embedded phrase) and any higher comprehensive phrase containing it with focus (for a development of this and similar ideas, cf. also Rooth 1985, Reinhart 1995, Zubizarreta 1998, Neeleman & Reinhart 1998). I will return to this point below when the focus properties of subordinated CP-internal constituents are discussed.

So far I have only presented data from simple clauses. In the next sections I will bring more complex sentences into the discussion, and will show an interesting asymmetry between distinct types of embedded clauses with respect to focus and stress. For the purposes of the discussion, we will restrict the focus of our investigation to the stress pattern displayed by unaccented words, since these words provide the crucial evidence that leads us to realize the failure of preverbal elements in embedded adjunct clauses to receive sentence stress in the accentual systems in question (in clear opposition to accented words, which always display surface prominence on the penultimate syllable). In other dialects, all words have an accent in every context, that is, there are no unaccented words; therefore, one cannot know for sure whether main (focal) stress has been assigned or not.

2.3. The asymmetry

Recall from section 2.1 that in the dialectal varieties of Basque under discussion there is a fundamental distinction between lexically accented and unaccented words: in lexically accented words a certain syllable (which depending on the variety can be any syllable but the last one) is given prominence, whereas in unaccented words the final syllable carries a pitch accent only when they occur in the canonical focus position, that is, in the position immediately preceding the verb, or when pronounced in isolation. As far as simple clauses are concerned, the description of the facts just drawn is correct. Nevertheless, if we turn to analyze the stress pattern in subordinate clauses, it becomes clear that the picture described thus far is not accurate enough: there is an asymmetry in the assignment of main stress to focalized constituents embedded in subordinate clauses which highly recalls another instance of the well-known complement-adjunct asymmetries. More specifically, whereas it is possible to prosodically mark an unaccented word embedded in a complement CP as focus by the regular application of the sentence stress algorithm, this option is not possible when the intended focus is embedded in a CP which occupies an adjoined position. In the latter case, the intended semantic focus cannot receive main stress. Instead, the verb receives it. Let us illustrate the asymmetry with some examples:

(8) Complement clauses:

a. amak esan dau [izekok etxe handià erosi dabe-la]
mother.ERG say AUX [aunt.ERG house big.DET buy AUX-C)
"Mother has said that our aunt has bought a big house"

b. amak [izekok etxe handià erosi dabela] esan dau
"Mother has said that our aunt has bought a big house"

(9) Adverbial clauses:

a. [izekok etxe handi(*à) erosi dabe-lez], danon-tzako tokía eukiko dogu
aunt.ERG house big.DET buy AUX-since all-for place.DET have AUX
"Since our aunt has bought a big house, there will be place for all of us"

b. [izekok etxe handi(*à) erosi-ko dabe-n-eán] eukiko dogu danon-tzako tokía
[aunt.ERG house big.DET. buy-FUT AUX-C-when] have AUX all-for place.DET
"There will be place for all of us *when our aunt buys a big house*"

Let us start with complement clauses first. In neutral utterances, complement clauses can appear either to the left or to the right of the finite verb, as is shown in (8a) and (8b). In this respect, CP complements differ from DP complements, which in the unmarked pattern do not appear to the right of the verb. If the nominal complement occurs postverbally, then it carries a presuppositional reading such that it is interpreted as expressing given information.[9] These semantic effects are not observed when the complement is sentential: under neutral intonation, in both (8a) and (8b) the complement clause can express new information. Moreover, under a neutral intonation, the embedded object can be interpreted as focus in both (8a) and (8b).[10] I will defer an account for these facts until section 3.2.1.

Like in main clauses, a preverbal phrase embedded in a complement clause can be focalized and thus receive main stress, as is illustrated in (8) above. In these examples, the embedded direct object *etxe handia* 'a big house' bears the most prominent stress of the sentence by virtue of being the lowest phrase (i.e. the most embedded element) of the sentence. Abstracting away for the time being from the exact position where complement clauses are generated in Basque, let us adopt the standard view that complement clauses are sisters to the verb. If so, then the lowest constituent of the embedded clause will qualify as the most embedded constituent of the entire sentence, given that it is the lowest phrase in the asymmetric c-command relation (Cinque 1993, Zubizarreta 1998). As a result, it receives sentence stress.

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[9] I am leaving aside those cases in which it is possible to have what it seems to be a 'postverbal' focus. This type of focus has special intonational and phonetic properties which are not observed in regular preverbal foci. The semantic properties associated with a 'postverbal' focus also seem different; for instance, unlike preverbal foci, postverbal foci cannot serve as an answer to a wh-question. For an interesting analysis of these cases, see Ortiz de Urbina (in this volume).

[10] In addition, under a focus intonation on the subject *amak*, the sequence in (8a) allows a further interpretation, according to which the subject is in focus (note that it appears left-adjacent to the verb). In this case, the postverbal clause cannot be part of the focus and hence must be presupposed. The two interpretations are unambiguously distinguished by their distinct intonation and stress pattern.

Consider the adverbial sentences in (9) now. (9a) and (9b) show that it is impossible to mark a constituent embedded in an adverbial clause as focus by assigning it main stress.[11] Note that the prohibition is not due to the fact that the adverbial clause is not immediately followed by the main verb, since in (9b), where the adjacency with respect to the main verb is fulfilled, it is also not possible to assign main stress to the embedded object. It seems plausible that the issue has to do with the often observed asymmetries between complements and adjuncts, which in turn are related to the syntactic position they occupy. Moreover, the asymmetry in main stress assignment observed in (8) and (9) should rather be reformulated as a distinction between *propositional* complement clauses and adjunct clauses, given that sentential complements of factive verbs pattern together with adverbial clauses with respect to preventing their internal constituents from receiving main stress.[12] This is illustrated in (10) below:

(10) a. Ama-k badaki [izekok etxe handi(*à) erosi dabe-na/dabe-la][13]
mother.ERG knows [aunt.ERG house big.DET buy AUX-C]
"Mother knows that (our) aunt has bought a big house"

b. Asierrek [ingeles(*à) ikasten dabile-na/dabile-la] ukatu dau
Asier.ERG [English.DET learn AUX-C] deny AUX
"Asier has denied that he is learning English"

The embedded direct object in the examples above cannot bear focal stress, in contrast with the direct object of the propositional non-factive complement clauses in (8) above, which clearly receive sentence stress. Why this is so would be a mistery if the two types of clauses were syntactically symmetric. However, it has been argued in the literature that factive and propositional CPs do not share the same syntactic treatment: there are certain syntactic contexts wherein factive CPs behave like adjuncts while propositional CPs behave like complements (cf. Kiparsky & Kiparsky 1970, Ormazabal 1995, Barbiers 2000). The evidence comes from Principle C effects, Sequence of Tense effects, ECM, and the islandhood of factive CPs. I will present some of the arguments that support the adjunct-complement analysis of factive and propositional clauses in section 3.2.2 below. For present purposes, let us assume that factive CPs are adjuncts, and that propositional CPs are true complements. This will let us include in the same cluster all clauses occupying an adjoined position, namely, adverbial and factive clauses (cf. (9) and (10), respectively), and oppose them to (propositional) complement clauses (see (8)).

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[11] Bear in mind that the stress restriction patterns we are discussing here only concern unaccented words. Lexically accented words maintain their accent whatever the context they occur in.

[12] I assume that a complement clause is factive if its truth is presupposed, and propositional if its truth is not presupposed (Kiparsky & Kiparsky 1970).

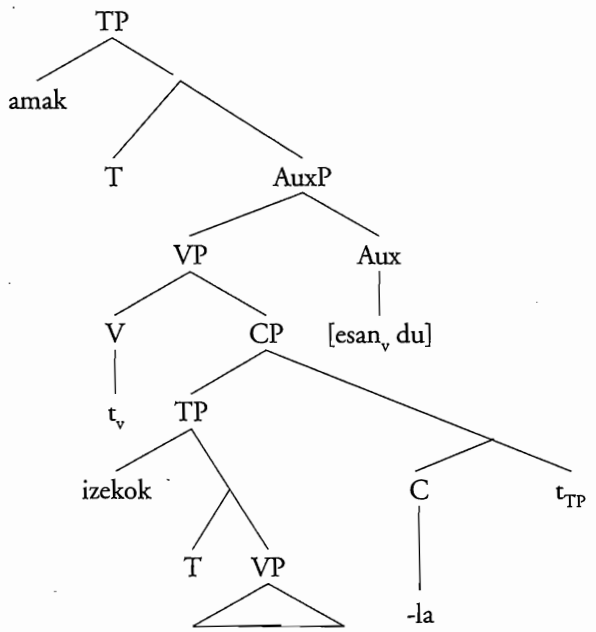
[13] Sentential complements of factive verbs admit two complementizers: *-(e)la* and *-(e)na*. The former complementizer occurs with all complement clauses (propositional and factives), whereas the latter can only occur with sentential complements of factive verbs (Azkue 1905-6, 1923-25, Arejita 1985, Euskaltzaindia 1999). Furthermore, the use of the "factive" complementizer is mainly restricted to Bizkaian dialects and to certain central dialects.

3. The analysis

3.1. The hypothesis

The main hypothesis of this article consists in deriving the asymmetry in main stress assignment observed between adjunct and complement clauses from a structural difference: *-(e)la* complement CPs are sisters to the main V, whereas *-(e)na* factive complement clauses and adverbial CPs are adjoined to an extended projection of the main V. Assuming Cinque's main stress algorithm, which is heavily based on the depth of embedding of the constituents of a sentence, it follows straightforwardly that complement CPs —being sisters to V— are more deeply embedded than adjunct clauses. Thus, complement clauses and whatever is most deeply embedded within that clause will count as the most deeply embedded element, and will therefore be able to receive main prominence. This gives rise to the stress pattern illustrated in (8) above, and represented in (11) below:[14]

(11)

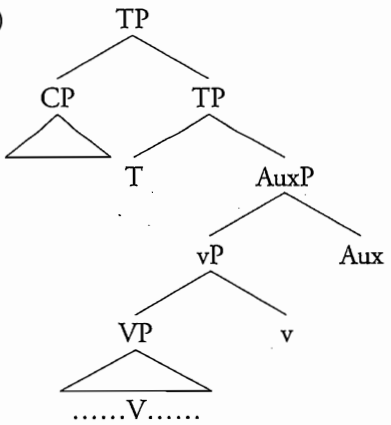


etxe handia erosi du

On the other hand, adjunct clauses are adjoined to an extended projection of V, namely to TP, as is illustrated in (12) below, so they are not contained within VP, and, therefore, do not qualify as the most embedded constituent. Consequently, none of the constituents embedded in the adjunct clause qualifies as a potential candidate to be assigned main stress (cf. the examples in (9) and (10) above):

[14] See section 3.2.1 for the arguments to assume that CP complements are righthand sisters of V.

(12)



This does not mean that the entire adverbial/factive clause —or, more in general, that a simple adjunct— cannot ever be interpreted as focus. In fact, there is a syntactic context which allows such a reading. This happens when no constituent intervenes between the adjunct and the main V, as in (9b) and (10b) above. Assuming that the main V raises to Aux (Elordieta 2001), the adjunct clause can receive main stress since it qualifies as the lowest phrase (and the rightmost one) to the left of the main verb (recall that Basque is a left-branching language). However, no element included in the adjunct clause can receive sentence stress. I propose that this is due to the fact that they are not included in the focus set defined by their structural position, in combination with the fact that Stress Shift is not applicable in Basque. We will discuss each of these facts in turn, but beforehand, I will present some arguments that support the idea that propositional complements are sisters to the verb, while factive complement clauses are adjuncts.

3.2. The position of propositional and factive CP complements

3.2.1. Propositional complement clauses

Propositional CP complements and DP complements seem to have the same distribution in Basque, but importantly, they differ in the focus properties associated with the position in which they may occur. DP complements can appear preverbally and postverbally, as is illustrated in (13). Likewise, propositional complement clauses can occur either to the left or to the right of the verb, as is shown in (14):

(13) a. Jonek atzo gezurra esan zuen
Jon.ERG yesterday lie.DET say AUX
"John lied yesterday (lit.: told a lie)"

b. Jonek atzo esan zuen gezurra
"John lied *yesterday* (where 'yesterday' is to be understood as narrow focus)"

(14) a. Jonek atzo [bere lagun batek diru asko irabazi due-la] esan zuen
Jon.ERG yesterday [his friend one.ERG money much earn AUX-C] say AUX
"John said yesterday that a friend of his earned a lot of money"

b. Jonek atzo esan zuen [bere lagun batek diru askó irabazi due-la]
"John said yesterday that a friend of his earned a lot of money"

However, despite the apparently similar distributional facts, the focus structures of (13b) and (14b) are not identical. When a DP complement appears to the immediate left of the verb, as in (13a), it constitutes (part of) the assertion of the sentence; that is, it expresses new information.[15] The same effects are observed with preverbal complement clauses. In (14a), the embedded sentence can convey new information, and also the embedded object, as we will see shortly below. However, when nominal complements appear postverbally, as in (13b), the postverbal argument cannot express new information; it is interpreted as part of the information assumed to be shared by the hearer. In fact, this is the regular pattern observed with nominal arguments, namely that postverbal nominal arguments cannot be interpreted as new information focus.[16] If we turn to complement clauses, we find a different picture. Thus, in (14b), the postverbal complement clause can still convey new information, despite its occurrence in postverbal position. If we were to treat DP and CP complements as lefthand sisters of V, we would not expect them to differ in their interpretation, according to the information structure of the sentence. More specifically, given the algorithm of neutral stress assignment as defined in (5), we would predict that neutral stress cannot fall on postverbal elements in Basque, since the algorithm only applies at the recursive side. Nevertheless, the data in (13b) and (14b) show that the prediction is only partially correct. As expected, the postverbal complement in (13b) does not bear main stress, but the embedded object of the CP in (14b) can. These facts can be easily accommodated if we assume, following Barbiers (2000), that CP complements are generated as *righthand* sisters of V, whereas DP complements are generated as lefthand sisters of V. This is represented schematically in (15):[17]

(15) a. Subject (indirect object) Verb CP Aux

b. Subject (indirect object) DP Verb Aux

If this is correct, a consequence of the assignment of main stress, as formulated in (5), is that prosodic prominence will fall on different constituents depending upon the relative position of the complement with respect to the head. This amounts to saying that the location of main stress will differ according to the sentential or nominal status of the complement. As the examples in (13) and (14) make clear, the predictions are confirmed: main (neutral) stress falls on the immediate preverbal DP in (13a), and on

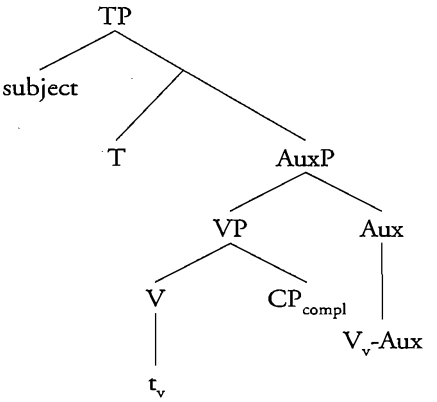
[15] In fact, as will be discussed in section 3.3.1, given the unmarked order in (13a), the entire clause can express new information.

[16] This is the result of the fact that nominal arguments are base generated and licensed to the left of V. As is argued in Elordieta (2001), they receive focus in-situ. Once V-raising takes place, they fail to be interpreted as foci, since the in-situ derivation is more economical (see the reference cited for further details).

[17] Ormazabal, Uriagereka & Uribe-Etxebarria (1994), adopting an antisymmetric framework, argue that both CPs and DPs are generated to the right of V. But this leaves unexplained the distinct semantic interpretation and stress properties observed between DP objects and CP complements.

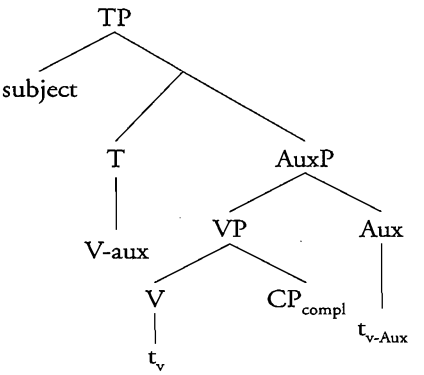
the CP complement in (14) (more specifically, on the embedded object). The fact that neutral stress falls on the CP, whether it is in postverbal position or to the immediate left of the verb, is a consequence of V-movement. That is, the CP complement is in its base position in both cases, but the verb has moved to different positions. Assuming that Aux is head-final, the linear order in (14a) is readily explained if we assume that the main verb raises to Aux in declarative sentences (Elordieta 2001).[18] This is represented in (16):

(16)



The linear order in (14b) implies a further movement: after raising to Aux, the complex head [V-Aux] raises to T, which I assume to be head-initial, like most functional categories (cf. Elordieta 2001 for arguments).[19] I suggest that the trigger for this movement can be prosodically motivated, namely, by some sort of heaviness effect, according to which «heavy» constituents tend to appear rightmost to the right edge of the verb. From a minimalist view, this movement seems optional, given the lack of semantic effects derived from its application:

(17)



[18] The trigger of this movement is assumed to be morphological. Adopting Ortiz de Urbina's (1994) and Elordieta's (1997b) ideas, I assume that Aux is a clitic-like head which needs to be attached to another head in order to be lexically supported. By V-to-Aux raising, Aux is morphologically satisfied.

[19] In Elordieta (2001) it is argued that the VO/OV distinction is a valuable tool to account for a number of phenomena related to focus and stress observed in VO and OV languages. Furthermore, it is argued that lexical heads (which include Aux) are head-final, whereas functional heads are left-headed.

In both (16) and (17) the CP complement is in its base position. In both cases, the embedded object qualifies as the most embedded constituent, hence it receives the default sentence stress.

In the next section I discuss the syntactic position of complement clauses of factive verbs.

3.2.2. Factive complement clauses

As was noted above (see ex. (10a-b), repeated here as (18a-b)), the embedded object of factive complements cannot receive main stress on the last syllable, regardless of the position the complement clause occupies with respect to the main verb:

(18) a. Ama-k badaki [izekok etxe handi(*á) erosi dabe-na/dabe-la]
mother.ERG knows [aunt.ERG house big.DET buy AUX-C]
"Mother knows that (our) aunt has bought a big house"

b. Asierrek [ingeles(*á) ikasten dabile-na/dabile-la] ukatu dau
Asier.ERG [English.DET learn AUX-C] deny aux
"Asier has denied that he is learning English"

In this respect, factive complements pattern with adverbial clauses, where it is also not possible to mark a preverbal constituent embedded in the adverbial clause with the default focal stress (cf. (9a-b) above). Assuming that the location of main stress within a clause is sensitive to the structural position of that particular clause, the conclusion seems to be that factive complement CPs and propositional complement CPs do not occupy the same syntactic position. Suppose this conclusion is right. What is the structural position of factive CPs, then? In order to answer this question, I will point out a number of facts that lead me to conclude that factive complement clauses are really adjuncts of the verb, and not complements of V.

Firstly, it has been noted elsewhere that factive CPs are weak islands for extraction, while propositional CPs are not islands at all (cf. Kiparsky & Kiparsky 1970, Hegarty 1991, Szabolcsi & Zwarts 1993, Barbiers 2000). Furthermore, Barbiers (2000) shows that factive CPs pattern with other islands with respect to what he calls Long Answer Scrambling, which involves reduction of a *that*-clause. He argues that *that*-clause reduction is only possible with propositional clauses (19a). With factive CPs, reduction is impossible (19b), just as it is with other well-known islands, such as complex DPs (20):[20]

(19) Q. Nork uste duzu irakurri duela liburua?
Who.ERG think AUX read AUX-C book.DET
"Who do you think that has read the book?"

a. **Jonek** uste dut ~~irakurri duela liburua~~
Jon.ERG think AUX read AUX-C book
"I think that Jon"

[20] For limited space reasons, I cannot offer a detailed presentation of Barbiers' arguments. For more details, the reader is encouraged to read Barbiers' own work.

b. *__Jonek__ dakit ~~irakurri duela/duena liburua~~
Jon.erg know.1sg
"I know that Jon"

(20) __Jon__ ~~itzuliko den~~ itxaropena galdu dut
Jon return AUX-C hope.DET lose AUX
"I have lost the hope that Jon will ever come back"

Furthermore, Barbiers makes the interesting observation that *that*-clauses which allow for reduction also allow for extraction and vice versa (see (21) below):

(21) a. zer uste duzu t irakurri duela Jonek?
what think AUX read AUX-C Jon.erg
"What do you think that Jon has read?»

b. zer dakizu t irakurri duela Jonek?
what know.you read AUX-C Jon.ERG
«What do you know that Jon has read?"

c. *nor galdu duzu t itzuliko den itxaropena?
who lose AUX return.fut AUX-C hope
"who have you lost the hope that will return?"

Thus, there seems to be a correlation between *that*-clause reduction and extractability. Given this correlation, Barbiers argues that *that*-clause reduction involves movement of the remnant (i.e., the constituent that is pronounced after clause reduction).[21] The fact that *that*-clause reduction is impossible with factive CPs (19b) and that factives are islands for extraction (21b) finds an straightforward explanation if we assume that factive complement CPs are adjuncts.

Related to the extractability issue is the fact pointed out by Kiparsky & Kiparsky (1970) that Exceptional Case Marking (ECM) is possible with propositional complements, but not with factive complements. Assuming that in ECM contexts the embedded subject raises to a position in the matrix clause to receive Case, it follows that it cannot do so in factive complements because, being adjuncts, they are islands for extraction.

Further evidence that supports the adjuncthood of factive CPs comes from Principle C effects. Barbiers notes that Principle C effects are observed in propositional CPs, since the arguments in the matrix clause c-command all material in the embedded propositional clause. In the case of factive CPs, these effects are only observed with respect to a pronoun in matrix subject position. This follows straightforwardly if factive CPs are adjuncts to an extended projection of V, located between the subject of the matrix V and the other verbal arguments.

More evidence supporting this analysis is provided by Sequence of Tense effects. In many languages it is impossible to have a mismatch in the tense of the matrix and the embedded CP when the latter is propositional, but no problem arises when the embedded CP is factive (cf. Uribe-Etxebarria 1994, Ormazabal 1995, Barbiers 2000):

(22) a. *Amaiak$_i$ uste zuen [pro$_i$ haurdun dago-ela]
Amaia.ERG think AUX [pregnant is-C]
"Amaia$_i$ thought that she$_i$ is pregnant"

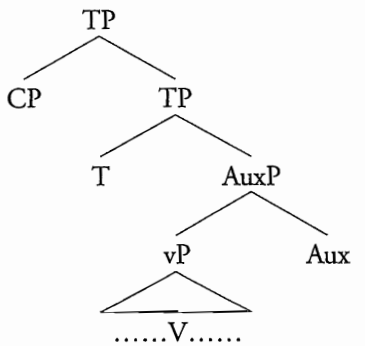
[21] Barbiers claims that the landing site of this movement operation must a position inside the matrix VP, given that if the movement were to a position inside the embedded clause, no island effects should be observed, contrary to facts.

b. Amaiak$_i$ bazekien atzo [pro$_i$ haurdun dago-ena/dago-ela]
Amaia.ERG BAknow.3.sg yesterday [pregnant is-C]
"Amaia$_i$ already knew yesterday that she$_i$ is pregnant"

As Barbiers notes, this asymmetry can be captured if we assume that matrix Tense can only impose tense restrictions to those elements under its c-command domain. If factives are attached to TP, they are outside the scope of the matrix T, and therefore, they are not conditioned by T.[22]

Considering the evidence presented above, it seems highly plausible to conclude that factive CP complements are adjuncts to an extended projection of VP, presumably to TP, as is illustrated in (23):

(23)



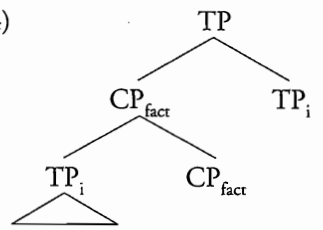
Given this analysis, we expect that factive CPs appear to the left of the finite verb, as is indeed the case (cf. (10b), (18b) above). However, they can also appear to the right of V-Aux, as we have seen earlier (see (10a) and (18a)). In fact, they often occur postverbally. One possible solution to consider would be to say that the CP is right-dislocated (cf. Eguzkitza 1997, 2001 for such an analysis for Basque). However, there is grounded evidence that strongly suggests that postverbal elements in Basque are structurally lower than preverbal elements (see Elordieta 2001 for some of these arguments). Moreover, interestingly, the same results are observed in other OV languages, such as German and Dutch (cf. Haider 1994, 1997, Barbiers 1995).[23] An alternative solution to account for the postverbal ocurrence of factive CPs is the V-raising analysis. For propositional CP complements, I assumed that the linear order S-V-Aux-CP arises as a result of V-Aux raising to T. The same account could be proposed for factive CPs. Note, however, that if factive CPs are adjoined to TP, the CP would still surface preceding the V. In order to account for these facts, I will adopt the analysis of «extraposition» proposed by Barbiers (1995, 2000), which derives the «extraposition» facts without having to apply right-adjunction, a desired result in accordance with an asymmetric view of syntax (Kayne 1994, 1998). Simplifying his analysis considerably, Barbiers assumes that movement must be motivated by interpretive reasons, and that

[22] See Ormazabal (1995) for an alternative analysis that factive CPs move at LF to a position out of the scope of matrix T.

[23] However, Kural (1997) argues that postverbal constituents in Turkish, a SOV language, behave as if they are hierarchically higher than preverbal constituents.

the structural position occupied by the different phrases in the tree determines their interpretation.[24] For adjunct cases like the postverbal occurrence of CP factive clauses, he assumes that the CP is in its base position i.e., adjoined to TP, but the extended projection of VP to which the factive is adjoined moves to [Spec,CP] of the factive CP, so that the CP is interpreted as a predicate or a modifier of VP. This is represented in (24) below:

(24)



Whether the factive CP appears preverbally or postverbally depends on the position where TP, the extended projection of VP, is spelled out: if TP is spelled out in its base position, the factive CP surfaces in preverbal position; if it is spelled out in its landing site, the CP surfaces to the right of V. It is very likely that the preference of factive CPs to occur postverbally is related to the fact that factives are strongly presuppositional, and hence, are not eligible as new information focus. Since preverbal position is associated to focus interpretation, factive CPs tend not to surface in that position but to the right of the main verb (i.e. to escape from being interpreted as new information focus).

3.3. The notion of focus set and Stress Shift

After showing what the structural position of propositional and factive CPs is, let us turn now to analyze why it is impossible for an unaccented word in immediate preverbal position to receive sentence stress when it is included in an adverbial or factive clause, whereas it can receive it when embedded in a propositional complement clause. As was mentioned earlier, I propose that the difference is related to the structural position occupied by the two types of clauses, together with the fact that those phrases not included in the focus set defined by the default stress assignment cannot be prosodically focused unless we apply scrambling or focus 'fronting'. The notion of focus set I assume throughout this article is adopted from Reinhart (1995), and Neeleman & Reinhart (1998), which in turn elaborate on Chomsky's (1971) and Cinque's (1993) insights.

3.3.1. Focus set

We have seen earlier that Cinque's (1993) default stress algorithm determines that the most prominent stress of a sentence falls on the most embedded constituent, following the direction of selection. It is important to point out that this formulation applies to 'neutral' contexts, as it is clear that in other contexts, a 'marked stress' may be required by discourse needs. I will leave this issue aside for the moment.

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[24] For reasons of limited space, here I cannot offer a detailed presentation of Barbiers' approach. The reader is referred to Barbiers (1995, 2000) for details.

Reinhart (1995) proposes that the rule that assigns main stress does not identify a single constituent as focus, but rather, the *set* of possible constituents that can serve as focus in a sentence (cf. Rooth 1985). The focus set can be defined as follows:

(25) The focus set of TP is any constituent containing the main stress of TP

To see how the mechanism works, let us consider the sentence in (26):

(26) Aitorrek [beren lagunak umeà euki dabela] entzun dau
Aitor.erg [his friend.ERG child.DET have AUX-C] hear AUX
"Aitor has heard that his friend has had a child"

Here the embedded object bears main stress. And indeed, it can be interpreted as the focus of the entire sentence. But in addition, under the same neutral intonation, higher nodes can also serve as focus: the embedded VP, the embedded TP, the embedded clause, or the entire matrix clause. These readings obtain because the focus set of (26), as defined in (25), is [TP_{matr}, VP, CP, TP_{emb}, VP, DP_{obj}], namely, those nodes that contain the constituent receiving the most prominent stress.[25] Which of the possible foci is the actual focus is determined by the context. This is the typical pattern observed in so-called 'wide focus' utterances across languages, which has also been referred to as 'focus projection' (Selkirk 1986, Cinque 1993, Kiss 1998, Zubizarreta 1998, among many others).

As noted before, when the CP complement appears to the right of V, the stress and focus interpretations of the sentence do not essentially change.[26] This result follows since in this order as well main stress is located on the embedded object, and because the postverbal CP complement is structurally lower than preverbal elements.

Consider an adverbial clause now:

(27) a. Amaiak [umeak baloia bota eutson-ean] mín hartu eban
Amaia.ERG [child.ERG ball.DET throw AUX-C-when] pain take AUX

b. Amaiak [umeak baloia bota eutson-eán] hartu eban min
Amaia.ERG [child.ERG ball.DET throw AUX-C-when] take AUX pain
"Amaia was hurt when the child threw her a ball"

In (27a) the matrix (cognate) object bears main stress, as expected, if adjunct clauses are attached to a node outside VP. Since the object *min* is the lowest and rightmost element to the left of the main verb, it receives the sentence stress. According to (25), the focus set generated for sentences in which the object bears neutral stress consists of all nodes containing the embedded object, and they can all serve as focus: the matrix VP and the matrix TP, which includes the adverbial clause. Consequently, any of these nodes can be interpreted as neutral focus. However, no element within the adverbial clause can be focus, because they do not contain the embedded object. In (27b), it is the embedded finite verb that bears sentence stress. This is so because after V-raising across the matrix direct object, the embedded verb is the rightmost element to the left of the

[25] For ease of exposition, I abstract away from representing AuxP and a VP-shell configuration. In any case, the inclusion of these nodes does not have any effect on what is being discussed here.

[26] See note 10.

main verb (cf. Elordieta 2001). The focus set of (27b) is thus constituted by the embedded CP and the matrix TP. In this case too, none of the embedded arguments can be singled out as focus because they do not contain the element bearing the most prominent stress. Importantly, the generalizations for adverbial clauses in (26) also hold for factive clauses. Furthermore, no embedded argument can be assigned a marked stress, such that its prominence prevails upon the default stress generated by the null theory of sentence stress assignment. In effect, in many languages, when we want to focus a particular constituent not included in the focus set of a given structure, special stress shifting operations such as destressing and stress strengthening take place (Chomsky 1971, Cinque 1993, Reinhart 1995, Zubizarreta 1998, Neeleman & Reinhart 1998). Nevertheless, the strategy of stress shift is not applicable in Basque. Instead, either scrambling or focus fronting applies, as will be shown in the next section.

3.3.2. Marked patterns

The operation of stress shift is a special mechanism that assigns prominent stress to a constituent that is intended to be focus and is not included in the focus set. Cinque refers to it as the discourse grammar procedure, in opposition to the sentence grammar procedure, which assigns sentence stress to the most embedded constituent. He claims that the discourse-related focus rule wins over the sentence grammar rule, so that the stress of the phrase in focus —a marked stress— will be more prominent than the 'default' stress assigned to a constituent under the null theory. Thus, (28a) is appropriate in the given context, but not (28b), because in that context the subject should be the focus, but the subject (alone) is not in the focus set generated by the sentence grammar procedure when main stress falls on the object (as before, italics indicate the actual focus, and bold face indicates main prominence):

(28) who bought the car?
a. *My father* bought the car b. #*My father* bought **the car**

In Basque the stress shifting strategy does not work. One cannot assign a marked stress to an intended focus constituent which is not to the immediate left of the verb:

(29) **Nire aitak* kotxea erosi zuen
my father.ERG car.DET buy AUX
"*My father* bought the car"

In order to derive such foci, Basque applies a marked syntactic device, which entails a movement operation: either scrambling (30a), or a sentence-initial focus (30b):[27]

(30) a. Kotxea *nire aitak* t erosi zuen b. *Nire aitak* erosi zuen kotxea
car.DET my father.ERG buy AUX "*My father* bought the car"

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[27] 'Marked' as is used here should be understood in relation to interface economy violations (Reinhart 1995, Neeleman & Reinhart 1998). Under this analysis, the null hypothesis is that the computational system always assigns main stress by applying the sentence stress algorithm. On this view, applying stress shift or other syntactic operations to identify focus is 'marked' because these operations yield most costly derivations. The gist of the analysis is that marked uneconomical operations are legitimate only if using them is necessary to convey a particular focus interpretation.

By scrambling the object across the subject in (30a), the latter remains the lowest and rightmost element to the left of the verb, and therefore receives main stress. Thus, scrambling has the same effect as stress shift does in other languages (see Reinhart 1995, Neeleman & Reinhart 1998, Zubizarreta 1998, Costa 1998). The strategy of having the focus in sentence-initial position, as in (30b), renders the same results. These structures are analyzed in Elordieta (2001) as having the focus phrase left-adjoined to CP, and involving movement of a null operator to [Spec,CP], followed by V-to-C movement. The details of this analysis are not relevant here. What interests us is that by employing this strategy, we can assign prosodic focus prominence to a single constituent not included in the focus set of (29).[28]

We may try to apply these marked syntactic devices to the adverbial cases at hand, so that a constituent embedded in the adjunct clause receives prosodic prominence. However, the results we obtain are not as desired. In (31a), the embedded object has scrambled across the embedded subject, but still the subject does not receive main stress, but the finite verb. In the same way, the second strategy of placing the subject and the verb at the beginning of the embedded adverbial clause does not have any effects on the prosodic prominence of the subject (31b). The preposed embedded subject cannot bear main stress in (31b):

(31) a. Amaiak [baloia *umeak* bota **eutson-ean**] hartu eban min
Amaia [ball.DET child.ERG throw AUX-C-when] take AUX pain
"Amaia was hurt when *the child* threw her the ball"

b. Amaiak *umeak* bota eutson-ean baloià] hartu eban min

These results follow directly under the present analysis, if we assume that adverbial and factive clauses are adjuncts to an extended projection of the main V. If this is correct, no element included in the embedded clause qualifies as the most embedded constituent and thus does not receive main stress. Since the option of assigning a marked stress is not available in Basque, the only option available for this constituent is to be the rightmost to the left of V, either by scrambling or by focus 'preposing'. However, the data in (31) indicate that the generalization must be redefined: the crucial factor lies in being the rightmost or the lowest element to the left of the *main* verb. The reasoning behind this is clear, given that the null theory of stress assignment, as is formulated in (5), is based on the direction of selection of V. When more than one clause is involved, it is the main V that determines where main stress will fall.

In fact, fronting an embedded focus to the matrix clause is possible in Basque, as shown with the propositional CP in (32a). As a result, the focused element receives prosodic prominence. However, 'long focus movement' of the subject of an adverbial clause to the matrix clause yields to ungrammaticality (32b). This is expected, given that adjunct clauses are islands for extraction:

(32) a. *Umeak*$_i$ esan dau Amaiak [e$_i$ bota dotzola baloia]
child.ERG say AUX Amaia.ERG [throw AUX-C ball.DET]
«Amaia has said that *the child* has thrown her the ball»

[28] Reasons of limited space prevent me from going into more detail. The reader is referred to Elordieta (2001) for further discussion.

b. **Umeak* hartu dau min Amaiak [t bota dotzonean baloia]
child.ERG take AUX pain Amaia.ERG [throw AUX-C-when ball.DET]
"Amaia was hurt when *the child* threw her the ball"

Summing up the evidence presented, the conclusion of this section is that the prosodic properties of propositional CP complements, factive CP complements and adverbial CPs correspond to the structural position they occupy: the former are generated as righthand sisters to the main verb, while factive and adverbial clauses are adjuncts to TP.

As we noted at the beginning of the article, the data and analysis proposed here are based on the accentual system of the varieties spoken in Northern Bizkaian Basque. The motivation for this is that only in these dialects the asymmetry in the location of focal stress between propositional complement clauses on the one hand, and factive and adverbial CPs on the other, is visible (given the existence of unaccented words which only get prosodic prominence in certain conditions). However, there is some evidence from other dialects that suggests that our analysis is on the right track. Recall the tight correlation existing between main prosodic prominence and focus. If the failure of a constituent to receive main stress implies that that particular constituent cannot be interpreted as focus, we can test these interpretational effects with other dialects, in which there is no such lexical difference between unaccented and accented words, and where all words can in principle surface with prosodic prominence on a given syllable. Consider the examples in (33). If the embedded object could be interpreted as narrow focus, or as contrastive focus, the following tag should be possible. However, according to most of the speakers I consulted, the continuations in (33a-b) yield to marginality or to ungrammaticality:[29]

(33) a. */?[Jonek *ardo gorria* edan zuen-ean] hasi ginen barrezka, ez ardo txuria
[Jon.ERG wine red.DET drink AUX-C] start AUX laughing not wine white.DET
"We started laughing when Jon drank *red wine*, not white wine"

b. *[dirua *Asierrek* lapurtu zue-lako] haserretu zen ama, ez Jonek
[money.DET Asier.ERG steal AUX-C] get angry AUX mother, not Jon.ERG
"Mother got angry because *Asier* stole the money, not Jon"

The ungrammaticality of these examples show that the object and the subject phrases contained within the adjunct clauses in (33a) and (33b) respectively cannot be interpreted as narrow focus.[30] These results match with the impossibility for unaccented

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[29] Except for one speaker, four out of five speakers of the central dialects found the sentence in (33b) ungrammatical, and (33a) slightly marginal or very marginal. I do not understand the reasons for this variation.

[30] As X. Artiagoitia pointed out to me, the tags in (33) become grammatical if we pied-pipe the entire adjunct clause (i). This does not hold if the focused constituent is embedded within a complement clause:

(i) [dirua *Asierrek* lapurtu zue-lako] haserretu zen ama, ez Jonek lapurtu zue-lako
[money.det Asier.erg steal aux-C] get angry aux mother, not Jon.erg steal aux-C
"Mother got angry because *Asier* stole the money, not because Jon stole it"

(ii) [dirua *Asierrek* lapurtu zue-la] entzun zuen amak, ez Jonek
[money.det Asier.erg steal aux-C] get angry aux mother, not Jon.erg
"Mother heard that *Asier* stole the money, not Jon"

Independently of the analysis of tags that one adopts, these data indicate, once more, that the syntactic and prosodic properties of focus crucially rely on the structural position in which a focus constituent appears.

preverbal phrases embedded in an adjunct clause in Northern Bizkaian to receive main stress. Hence, the data illustrated in (33) provide further support to the analysis proposed here to account for the prosodic data coming from Northern Bizkaian Basque dialects with respect to focus marking.[31]

4. Other contexts of failure to receive focal stress

Our analysis can be extended to other cases in which (parts of) a constituent immediately preceding the verb does not carry main stress in the Northern Bizkaian dialects under discussion. One such context is observed in adnominal constructions of the type illustrated in (34):

(34) a. [Jon-en semià] ekarri dabe
Jon-GEN son.DET bring AUX
"They brought *Jon's* son"

b. [*Jonèn semia] ekarri dabe

(34b) shows that an unaccented possesive phrase cannot carry focal stress. This is expected if the possessive phrase occupies [Spec,DP]. That is, by virtue of being in a structural position higher than the noun *semia*, it does not count for the assignment of main stress, and instead, stress is assigned to the lower phrase *semia*, which is rightmost to the left of the verb. Interestingly, as was already pointed out in the discusion on prosodic focusing in adjunct clauses, in these dialects the possessive phrase in (34) cannot get marked stress either, even when we want it to be the pragmatic focus. Moreover, in such contexts there is no choice of applying scrambling or fronting operations, since no reordering nor extraction is possible from within DPs in Basque.

Another context where the preverbal element fails to receive focal stress is in relative clauses:

(35) a. [**Zure lagunàk* erosi dabe-n] etxea jausi da
[your friend.ERG buy AUX-C] house.DET fall AUX
"The house that your friend has bought has fallen down"

b. [Zure lagunak erosi dabe-n] etxeà jausi da

In (35a) the subject embedded in the relative clause cannot be pronounced with focal stress on it. Main stress falls on the head of the relative clause, which in Basque follows the relative clause (cf. 35b). If we consider the fact that relative clauses are modifiers of the head noun they qualify, and if we adopt the traditional view that relative clauses are attached to the noun phrase they modify, the data illustrated in (35) find a plausible and straightforward explanation. That is, by being adjoined to DP, they do not qualify as potential candidates to receive main stress, since the head noun is

[31] Further interesting data comes from embedded wh-questions. For reasons of limited space, I cannot offer a detailed presentation of the facts, but I would like to point out that even though wh-elements normally carry focal stress, when the wh-phrase occurs within an adjunct clause, it fails to receive main stress. On the contrary, when occurrying within a complement clause, the wh-phrase carries main stress. Thus, wh-elements pattern with foci with regard to prosodic prominence. I leave this for further research.

most deeply embedded. Thus, relative clauses behave like other adjunct clauses with respect to prosodic prominence assignment, as expected.[32] Given what we observed in the preceding section about the possibility of interpreting a constituent embedded within an adjunct clause as contrastive focus, the ungrammaticality of the following sentence provides further support to our analysis:

(36) *[Liburua *Mireni* eman dio-n] gizona da hori, ez Amaiari
book.DET Miren.DAT give AUX-C man.DET is that, not Amaia.DAT
"That is the man who has given the book *to Miren*, not to Amaia"

5. Conclusion

In this article several cases have been analyzed, in which a preverbal element embedded in an adjunct clause fails to receive main stress in certain Basque dialects. Under the analysis presented here, the paradigm cases discussed find a straightforward explanation by virtue of the correlation existing between the structural position a given constituent occupies and main stress assignment. Following Cinque (1993), I assume that the most prominent stress of a sentence falls on the most deeply embedded constituent, which usually coincides with the rightmost element in terms of linear order. Leaving complement clauses aside, the fact that the phrase receiving main stress in Basque occurs to the immediate left of the verb is a consequence of the direction of selection in this language.

On the assumption that rightward movement does not exist, it is argued that there are two sources for the occurrence of postverbal constituents: in the case of propositional complement clauses, they are generated to the right of V, following Barbiers (2000). Accordingly, in the order S-VAux-CP_{comp}, CP is in its base position, which qualifies as most embedded, and thus, the deepest constituent in that clause receives main stress. When other constituents appear to the right of the verb, they surface in that position as a result of V-Aux raising, or as a result of movement of an extended projection of VP into the specifier of the «postverbal» constituent. The former movement operation derives in the linear order S-CP_{comp}-VAux, whereas the latter yields the order S-VAux-$CP_{fact/adv}$.

It was further argued that a distinction between propositional complement clauses and factive complement clauses should be made. A number of syntactic properties displayed by factive CPs were shown to strongly suggest that they behave like adjuncts. Under this assumption, the similar behaviour with respect to prosodic focus marking observed in factive and adverbial clauses finds a straightforward explanation. Additional support for the adjunct analysis of factive CPs comes from relative clauses. Assuming that relative clauses are syntactic adjuncts, the fact that no constituent embedded in a relative clause can bear main stress either suggests that factive clauses, adverbial clauses and relative clauses deserve the same analysis.

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[32] Given the similarity in the morphological shape of the genitive marker and the affix characteristic of relative clauses, some authors have proposed that relative clauses are real genitive constructions (cf. Gavel 1929, Omaechevarria 1959, Eguzkitza 1997 for Basque). However, other scholars have fairly argued that the form of the two affixes is not identical: the form of the relative marker is *-n*, whereas that of the genitive is *-(r)en* (cf. Lafon 1943, de Rijk 1972).

The analysis I propose in this paper to explain what prevents the constituents embedded in an adjunct clause from receiving sentence focal stress relies heavily on the structural position occupied by these clauses. The asymmetry in prosodic prominence between propositional complement clauses and adjunct clauses is reduced then to a hierarchical difference: complement CPs are sisters of the matrix verb, and thus, they count as the lowest constituent. A phrase embedded in this CP can receive (neutral) focal stress if it is the lowest phrase in its own clause. On the assumption that the algorithm that assigns main stress does not define a single focus, but a set of potential foci (Reinhart 1995), all nodes containing the element that bears main stress can be considered to be foci. When sentence stress falls on the object of a complement clause, the embedded CP, and also the entire matrix TP can be focus ('focus projection'), as they all contain an embedded object. This holds regardless of the preverbal or postverbal position of the CP, since the CP is in its base position in both cases. Rather, in cases in which the embedded CP appears postverbally, it is the matrix V that moves across the CP complement.

As for adjunct clauses, I have argued that by being adjoined to a projection of the matrix verb, none of the phrases contained in an adjunct clause qualifies as the most embedded constituent. If no phonological material intervenes between the adjunct CP and the main verb, the rightmost element in the adjunct CP receives sentence stress, namely, the finite embedded verb, to which the affixal complementizer is attached, but crucially, the CP-internal constituents do not. Therefore, the latter cannot be interpreted as single foci unless we apply 'marked' syntactic devices that undo the results of neutral stress assignment. Given that shifting the stress to a constituent that we want to focus (in a narrow sense) is not available in Basque, it is argued that the only option available for this constituent is to be the rightmost to the left of the main V, either by scrambling or by focus 'preposing'. The crucial role that the main verb plays in the assignment of focal stress is shown to be derived from the (leftward) direction of selection of the matrix V. Since constituents of adjunct CPs cannot be extracted (i.e., they are islands), embedded constituents cannot be foci.

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