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The effects of focus typology on Basque structure: syntax, prosody and their interface

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Abstract

The central aim of this thesis is to investigate focus constructions in Basque, a language whose word order exhibits a great degree of freedom, which, despite a canonical SOV order, is heavily affected by the informational values of its constructions.

Focalized phrases can surface in any position of the sentence, but, according to most of the previous literature (e.g. Laka 1990; Elordieta 2001), they necessarily appear left-adjacent to the verbal complex [prt + aux]. However, a number of different structures in which this condition is not met can be found (Ortiz De Urbina 2002; Iruntzun 2005) and thus, the investigation of focus typology is essential to account for the variation in the apparent fix position of focalized phrases.

Following Jayaseelan (2001), I suggest that two focus positions can be identified, both filled by moved constituents: one in the CP and one in the low periphery above v*P that, according to Giorgi (2016), can also host *propositional* adverbs. In line with *antisymmetry* (Kayne 2004), I assume a universal Spec – Head – Comp configuration and a basic SVO order

Then, I investigate the relation between syntax and prosody which, crucially, interact in the identification of foci. I thus analysed a series of elicited sentences containing focus, in order to observe to what extent focus typology can affect, or be affected by, the prosodic structure of Basque.

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**It is not in what you succeed in doing that you get your joy,
but in the doing of it.**

Jack London, *Martin Eden*.

Table of contents

INTRODUCTION.....	1
1. ELEMENT OF BASQUE GRAMMAR AND SYNTACTIC STRUCTURE.....	5
1.1 Word order	5
1.1.1 Declaratives.....	5
1.1.2 Interrogatives.....	7
1.1.3 negation	8
1.1.4 V2 order.....	9
1.2 Noun phrases	11
1.2.1 Case system.....	12
1.3 Verbal group.....	14
1.4 Syntactic structure	17
1.4.1 Ortiz De Urbina (1989)	18
1.4.2 Laka (1990) and Arregi (2003).....	19
1.4.3 A. Elordieta (2001).....	21
1.4.4 Haddican (2006).....	22
1.4.5 G. Elordieta (1997).....	24
Conclusions	26
2. DEFINING FOCUS	27
2.1. Semantic values of focus.....	28
2.1.1 Information focus	29
2.1.2 Contrastive Focus.....	30
2.2. Focus typology	32
2.2.1 Contrastive focus and corrective focus.....	32
2.2.2 Exhaustive focus.....	33
2.2.3 Mirative focus.....	34
2.2.4 Syntactic distribution and pragmatic properties	34
2.3 Prosody-driven focalization	36
2.3.1 Basic notions of prosodic analysis	36
2.3.2 Information structure effects on prosody	38
2.3.3 Italian focus, some special properties.....	39
2.3.4. Focus and main stress identity.....	40
2.3.5 In sum.....	40
2.4 Focus in Basque	41
2.4.1 Sentence Stress	42
2.4.2 Previous literature on focus in Basque	45
2.4.3 Narrow focus reading	52

2.4.4 Left peripheral foci	55
2.4.5 some problem with NSR analysis.....	57
2.4.6 Post-verbal focus	62
Conclusions	64
3. DERIVING FOCUS STRUCTURE.....	67
3.1 Pre-verbal position	70
3.1.1 The low periphery of the clause	70
3.1.2 Other evidence for a vP periphery	75
3.1.3 Some remarks on multiple wh-questions in Basque.....	80
3.2 The syntax of focus typology in Basque	82
3.2.1 A position in the low periphery for Basque focus	86
3.2.2 Information Focus	87
3.2.3 Mirative focus.....	89
3.2.4 Corrective focus	91
3.3 Conclusions	92
4. FOCUS AND PROSODY.....	95
4.1. The prosody of focus in Basque	96
4.1.1. Some preliminaries.....	96
4.1.2 Information Focus	97
4.2 Other types of focus	100
4.2.1 Multiple information foci	100
4.2.2 Multiple-corrective-focus.....	101
4.2.3 Mirative constructions	102
4.2.4 Corrective focu	103
4.2.5. In Sum	104
4.3 The syntax-phonology interface	104
4.3.1 Direct reference theory	104
4.3.2 Prosodic Hierarchy Theory.....	106
4.3.3 Morpho-syntactic feature chains	107
4.3.4 Phonological items encoded in syntax	108
4.4 Syntax-prosody interface in Basque focus structures.....	110
4.5. Conclusions	114
CONCLUSION	117
References	119
Appendix	125

INTRODUCTION

The central aim of this thesis is to investigate focus constructions in Basque and in particular how focus typology affects word-order and prosody.

In order to do that, I asked 5 native speakers of Basque to produce the appropriate structure for a context I provided or to correct a sentence in which one or more elements were incorrect with respect of the given information. I also asked them to describe three pictures of events involving a person giving something to another person. The analysis of these data from a syntactic and the prosodic point of view provide evidence for a different distribution of *foci*, depending on their informational import to the structure.

Basque is a language spoken in *Euskal Herria* ‘The Basque country’, in a geographical area located in the western Pyrenees; most of its regions – referred as *Hegoalde* - are part of Spain and the others – named *Iparralde* – are located in France. The Standard variety is referred to as *Euskara Batua* ‘unified Basque’ and 5 major regional varieties are spoken in the country: Middle Basque, South High Navarrese, Western Basque, Eastern Navarrese, and Alavan. It is classified as an isolated language because, despite extensive analysis, no clear evidence for a genealogical relationship with any other language has been found.

I decided to investigate focus phenomena in Basque because focus is a grammatical category that virtually involves every module of grammar with a great degree of variation in its realization. In fact, numerous strategies can be adopted to mark focus, not only in a cross-linguistic perspective, but within the same language system as well. Consequently, it is necessary to take into account the numerous meanings that focus can convey. Moreover, the study of focus requires a multi-disciplinary approach, thus, it seems to be an extremely useful device to investigate interface-phenomena. In particular, the interactions among syntactic structure, external reality and speaker’s role in the organization of the sentence, are important topics in the study of language, as shown by the interest they raise in the scientific community.

The dissertation is organized as follow:

In chapter 1, I provide a brief overview of Basque grammar which is characterized by having several peculiar features that interact with the topic of this thesis. In particular, I focus on word-order typology and its interaction with information structure and on the role and some important properties of the verbal system.

In the second portion of the chapter, I present some proposals for the syntactic structure of Basque which is a widely debated topic within the Generative framework. In particular, two

types of structures have been proposed: a basic SOV one (A. Elordieta 2001; Arregi, 2003 among others) and an SVO one (G. Elordieta, 1997; Irurtzun, 2005 among others).

In chapter 2, I provide an overview of the literature that deals with Focus from the semantic, phonologic and syntactic perspectives. Two main approaches to the study of focus can be identified: a prosody-driven one, and a syntax-driven one. After having introduced some basic devices used to represent focus in the various domains I analyse some of the proposals of the last two decades regarding, especially, Italian. The extensive research that has been carried out to account for focus phenomena in Italian is mainly based on the claims made within the framework of the cartographic approach regarding the left-periphery of the clause (1997 and subsequent works). According to Rizzi's hypothesis, the left periphery of the clause, i.e. the CP portion of the sentence, is composed by a series of functional projections that host those elements that represent the interface between the propositional content of the sentence (IP) and the superordinate structure. The contribution that has been provided by the work of a number of linguists (Kiss, 1998; Bianchi and Bocci, 2012; Bianchi, Bocci and Cruschina, 2015 among many others) is important in that they provided evidence for the role of focus typology in the syntactic and the prosodic distribution of *foci*. In particular, in the articulate CP layer, there is a Focus head whose specifier hosts corrective focalized constituent in Italian and it has been claimed to be one of the two positions in which focalized constituents are base-generated in Basque (Elordieta, 2001).

In section 2.4., I present some of the theoretical proposals that have been made to account for the identification of focus in Basque. In particular, two main approaches can be identified, a left-peripheral one (e.g., Ortiz de Urbina 1989, 1999; Hualde and Ortiz de Urbina 2003; A. Elordieta 2001) and a nuclear stress rule based (Arregi 2003). I follow Irurtzun (2005) in considering the left peripheral one can explain some of the issues that emerge in Arregi's (2003) analysis.

In chapter 3, I propose that, if a basic SVO order is assumed (in the spirit of Jayaseelan, 2001) for Basque, the distribution of focus-constituents can be accounted in a configuration of the syntactic structure in which two peripheries can be proposed, one for each of the phase proposed within the Minimalist Program (Chomsky, 1995).

First of all, I introduce the proposal by Jayaseelan (2001) and I present cross-linguistic evidence for the presence of a left-periphery of the vP, which has been proposed for several languages (Old and Modern Italian; Modern Eastern Armenian; Malayalam; Romanian). The basic predictions that these studies make, is that the two peripheries can account for a number of unsolved issues in those languages that exhibit certain special word-order and scope properties.

I then introduced the multiple *wh*-structures that are analysed in Jeong (2007) which share some distributional properties with multiple-foci.

In the second part of the chapter, I provide evidence for the presence of two positions for focus in Basque, one for each periphery. This proposal is in line with the observations made in Etxepare and Uribe Etxebarria (2008), who investigate scope relations between negation and focus in Basque and Spanish. I suggest that the CP internal position is licensed for those *foci* that require a discourse or a contextual antecedent to be felicitous interpreted, e.g. corrective focus. Conversely, the low focus position is occupied by foci that do not need an antecedent to be interpreted, namely information and mirative focus. The latter, in particular, expresses a particular semantic value that I compare with the one express by the highest adverbs in Cinque's (1999) hierarchy that has been defined as propositional in Giorgi (2011, and subsequent works) in that they express the speaker's opinions over the sentence. Given the discourse-configurational status of Basque, I suggest that the role of the speaker should be taken into account and it requires to be encoded in syntax to account for disharmonic word-orders that can emerge.

In chapter 4, I analyse some of the data I collected in order to investigate the role of prosody in the identification and interpretation of focus in Basque. The claim that a focus-structure needs to bear main sentence stress to be interpreted as such seems to hold only for information focus, while the other types of focus are marked by a general phonological prominence. This hypothesis is supported by extensive data collection and analysis presented in Hualde and Al. (2002) in which it is claimed that a categorization of Basque following the traditional classification of 'stress languages' and 'tone languages' fails to account for the prosodic properties that it shares with other languages.

I then present some of the main theoretical proposals regarding mapping at the interface of syntax with prosody, which can be grouped in two main approaches: the 'Direct Reference Theory' and the 'Prosodic Hierarchy Theory'. However, the hypothesis following which certain prosodic properties are encoded in Syntax (Giorgi, 2011 and subsequent works) could shed light on the relationship between syntax and prosody, by proposing that the 'prosodic heads' that project in syntax are immune to syntactic operations, but interpretable at the PF.

According to the data collected here, it seems plausible to think that the main strategy employed by the Basque language is a syntactic one. However, prosody can mark focus when the focus position is filled (as in the case of multiple-foci constructions) by both an increased intensity contour and an intonational break that precedes the focalized constituent. Speakers can module

these devices depending on their choice about the relevance of a given constituent, following, however, the syntactic constraint of having the focalized phrase left-adjacent to the participle. Chapter 5 is a conclusion where I point out some of the theoretical issues still left unsolved and that need to be addressed in further studies.

1. ELEMENT OF BASQUE GRAMMAR AND SYNTACTIC STRUCTURE

1.1 Word order

1.1.1 Declaratives

Basque is traditionally considered as *a genuine example of a language with a great degree of freedom of word order* (Laka and Erdocia 2012, p.117) in which virtually every possible order is acceptable. The following examples show that each one of the possible (3!=6) combinations of the three elements *Jonek*, *Emakumea*, *ikusi du* ‘Jon’, ‘woman’, ‘has seen’ is grammatical regardless of the context or the prosodic structure they exhibit. In other words, all the orders in (1) are acceptable and do not entail a different information structure.¹

- | | |
|---|--|
| 1. Jonek emakumea ikusi du
Jon.ERG woman-det see.PRF aux.3SG.PRS
'Jon has seen the woman' | a. Jonek ikusi du emakumea
b. Ikusi du Jonek emakumea
c. Emakumea Jonek ikusi du
d. Emakumea ikusi du Jonek
e. Ikusi du emakumea Jonek |
|---|--|

I do not consider here possible permutations that involve a split of the [V+AUX] complex since the two verbal elements cannot be divided unless certain modal particles or an appropriate context, i.e. a negatives structure or a cleft, is present. In fact, the auxiliary can never appear in the linear first position of a sentence, but it must be preceded by another element. This is the case of (2), in which the sentence is indeed ungrammatical due to the violation of the constraint just mentioned:²

¹ I will consider here the variety of *Euskara batua* “unified Basque” which is the variety taught in schools and ruled by *euskaltzaindia* which is *the Royal Academy of the Basque Language (1919), the official body responsible for Basque, that is the Basque language. It carries out research on the language and its object is to safeguard it; the Academy has formulated the rules for the normalisation of the language.* (www.euskaltzaindia.eus). Hualde (1997) identifies 24 phonological sub-varieties of the 6/9 main dialects spoke in *Euskal Herria* “the Basque country”.

² Is traditionally accepted the claim that *If the auxiliary follows the participle, no element can appear between them and when the inflected auxiliary precedes the main verb, any number of phrases can intervene between the auxiliary and the main verb* (Laka 1996 Section 1.1). However, I will present a more accurate description of this matter later in the chapter.

2. *du Jonek emakumea ikusi
 *aux.3SG.PRS Jon.ERG woman-det.ABS see.PRF

This great degree of freedom in word order leads Rebuschi (1989) to claim that Basque is an instance of non-configurational language, that is, a language that does not possess a hierarchical deep structure. This observation cannot be precise, considering that certain structures, such as (3), a comparative structure, have a specific WO which cannot be modified. The two elements are compared following this linear order, if the two DPs surface in a different order, the meaning of the sentence will be totally different, that is: *Gizona emakumea baino gaizteago da* ‘the man is younger than the woman’.

3. Emakumea gizona baino gaizteago da
 woman-det.ABS man-det than young-more aux.3SG.PRS
 ‘the woman is younger than the man’

Furthermore, despite the relatively free word-order, most of the literature agrees that the preferred order for affirmative sentences in out of the blue contexts is the following:³

4. S > (IO) > O > [V+AUX]
 Jonek emakumeari kamiseta eman dio
 Jon.ERG woman-det.DAT shirt-det.ABS give.PRF aux.3SG.PRS
 ‘Jon has given the woman a shirt’

The other possible orders have different semantic or pragmatic values, in particular, as far as information structure is concerned, they are treated as *marked*. Note, however, that a different word order does not lead to ungrammaticality: different speakers can in principle use a statistically non-canonical order to express the same informational content. Traditional grammars identify a position called *galdegaia* ‘the questioned element’ which immediately precedes the main verb and hosts *the informationally relevant phrase in the sentence* (Laka 1996, p.12) that is, the answer to a *wh*-question (5):

³ Laka and Erdocia (2012) present data from both experimental and statistical studies. The difference in meaning for different word orders need more investigation since different WOs do not seem to affect the information structure of the sentence. I will partially deal with this issue in chapter 3.

5. Q - Nork ikusi du Miren?
 Who.ERG see.PRF aux.3SG.PRS Miren
 ‘Who saw Miren?’

- A- a) JONEK ikusi du Miren
 b) Miren JONEK ikusi du
 ‘Jon saw Miren’

This position has been widely investigated and the role of information structure in the linear order of Basque has been the topic of various studies, in particular the one concerning focus constructions. In fact, Laka (1996, among others) argues that the pre-verbal position hosts both focus and *wh*-elements. I will address this topic in chapter 2, when I will present the literature regarding focus-structures; for the time being, I will treat the *galdegaia* position as the host of the informationally relevant elements in both marked and unmarked WO.

Basque is a ‘three-way pro-drop language’ that is, ergative, dative and absolute constituents can be pro-dropped except for the element in the *galdegaia* position (Ortiz De Urbina, 1989). There are some structures in which only a synthetic verbal form appears and yet, if no pronoun is present, the prefix *ba-* is added to the verb in order for the sentence to be grammatical (6):

- | | |
|---|---|
| 6. a) Bazaramatzat
<i>ba-</i> carry-you-I.IMP
‘I am carrying you’ | b) Nik zaramatzat
I.ERG carry-you-I.IMP
‘I am carrying you’ |
|---|---|
- De Rijik 2008, p. 179

This restriction is not present in sentences in which a periphrastic form is involved but this is part of the focus strategies of some varieties and it goes beyond the scope of this dissertation.

1.1.2 Interrogatives

The position of *galdegaia* also hosts *wh*-objects which must precede, and be adjacent to, the verbal complex. As example (7b) shows: despite the preferred word order (7a), it is not necessary for the *wh*-element to appear in first position, since the *galdegaia* is, in this case, preceded by a Topic, i.e. the ‘given information’:⁴

⁴ The focus reading of the element that precedes the verbal complex can have a wider scope and take over more than one element.

7. a) nork ikusi du emakumea ?
 Who.ERG see.PRF aux.3SG.PRS woman-det.ABS
 ‘Who has seen the woman?’
- b) Jonek nori eman du kamiseta ?
 Jon.ERG whom.DAT give.PRF aux.3SG.PRS shirt-det.ABS
 ‘To whom has Jon given the shirt?’

Basque also allows multiple-*wh* structures which must be ordered according to the standard pattern: ERG > DAT > ABS, i.e. S > IO > O as the example in (8) by Jeong (2007) shows. The verbal complex can surface between any of these elements, but the order cannot change: ERG > (V+AUX) > DAT > (V+AUX) > ABS > (V+AUX).⁵

8. a) Nork nori zer eman dio?
 Who.ERG whom.DAT what.ABS give.PRF aux.3SG.PRS
 ‘Who gave what to whom?’
- b) *nori zer nork eman dio?
 whom.DAT what.ABS who.ERG give.PRF aux.3SG.PRS

Jeong, 2007 [29a; 29d]

Polar questions are produced by means of three possible strategies, as shown in (9), with, according to De Rijk (2008), a strong preference for (9a):

9. a) maintaining the declarative word order changing the intonation pattern (raising at the end): *Jonek emakumea ikusi du?* ‘has Jon seen the woman?’
- b) putting the verbal complex at the beginning of the sentence: *ikusi du Jonek emakumea?*
- c) inserting the particle *al* between the auxiliary and the participle: *Jonek emakumea ikusi al du?*

1.1.3 negation

The word order of negative sentences is different from the one of the declaratives: the negative operator *ez* must precede the inflected auxiliary, as in (10a), or the inflected main verb, as in (10b). If this condition is not respected, the result is ungrammatical, as shown in (10c):

⁵ The issue is more complex, and I will deal with it in chapter 3 when I will talk about multiple *whs* and multiple-*foci*.

10. a) emakumea ez da etorri
woman-det.ABS neg aux.3SG.PRS arrived.PRF
'the woman has not arrived'

b) emakumea ez dator
woman-det.ABS neg come.3SG.IMP
'the woman is not coming'

c) *emakumea etorri ez da

The order in (10c) is grammatical (or even obligatory) in sentences like the ones in (11):

11. a) [etorri ez den] emakumea
arrived not is-that woman-det
'the woman [that has not arrived]

b) emakumea etorri ez bada
woman-det arrived not if-is
'if the woman has not arrived'

c) etorriko ez da ba!
Arrive.FUT not is indeed
'will (she) not come!'
(of course she will come!)

Laka 1996 [25a; 25b; 25c]

(11a) is a relative clause, which precedes its head noun in Basque; (11b) is a conditional sentence, and (11c) is an exclamative sentence. The same word order, although ungrammatical in modern Basque, is found in earliest Basque written texts and occasionally in songs and children's rhymes.

1.1.4 V2 order

Basque word order cannot be analysed as a V2 order in canonical V2 languages, such as German:

12. a) Heute Abend liest Niko ein neues Globi-Buch
today evening reads Niko a new Globi-book
'Tonight Niko reads a new globi Book.'

b) *Heute Abend Niko liest ein neues Globi-Buch.
today evening Niko reads a new Globi-book

Haddican and Elordieta, 2013 [1]

However, Basque exhibits some V2-like effects, namely in those structures in which it is required an adjacency between an element and the fronted auxiliary (or synthetic verb). The latter is the

case of negative structures, that require the inflected verb to follow the negative operator *ez* ‘not’ or when the whole ‘verbal complex’ moves to a higher position, resulting in a V2 order in *wh*-structures. Haddican and Elordieta (2013, p.59) point out that *V2 effects reflect the interaction of two features: an EPP feature on a high C-field head hosting exactly one XP; and an [uV] feature on this same head which attracts the inflected verb.*⁶ They use the term *EPP+V-raising approach* claiming that these two features predict the generalization that the inflected verb, when fronted, appears in second position. Furthermore, they argue that Basque shows V2 effects as far as [EPP] triggered movement is concerned, but with no obligatory V-to-C movement, that is, V cannot appear as the first element of the sentence, but it does not have to be in second position.⁷

However, the verbal complex can appear in a V2 configuration, despite the fact that this is not the obligatory order. Using their terminology, Basque is a ‘ $V \geq 2$ language’ that, unlike most V2 languages, *discriminates very little in terms of the type of constituent that can be in first position* (Elordieta and Haddican 2013, p.61). The ‘first element’ usually corresponds to the *galdegaia*, but there is the possibility for Basque to recur to the ‘*ba*-support’ (Ortiz De Urbina 1999) that is, the particle *ba-* is affixed to the inflected verb and this allows a V-first sentence like (13a), which is ungrammatical without it (13b):⁸

13. a) Ba-dator-Ø Miren
 AFF-come-3SG.IMP Miren
 ‘Miren is coming.’
- b) *dator Miren
 come.IMP Miren

The particle (derived from the affirmative word *bai* ‘yes’) is considered an emphatic marker and it interacts, in certain varieties, with the focus phenomena I will present in chapter 2 and 3. The *V1 restriction is not present in non-root clauses for which, in fact, *ba-* is unavailable (Ortiz de Urbina 1999):

⁶ The interaction of these two features creates four typological distinct type of languages, summarized by Elordieta and Haddican (2013) as follow: (i) a language with both of these features will be a V2 language; (ii) a language with neither of these properties will have neither generalized EPP movement to C, nor obligatory V movement to C as instantiated in English [...]; (iii) varieties with [uV] on C but not [EPP] will be instantiated by some verb-initial languages where verb raising is produced by head-movement to C; (iv) finally, a language with EPP movement to the left periphery, but no verb movement to C will be a “ $V \geq 2$ ” language.

⁷ An exception to this pattern are the imperative forms like: *Zaude isilik!* ‘Be quiet!’.

⁸ Elordieta and Haddican (2013) note that, like in German, hanging topic does not count as ‘first element’.

14. Jakin/ ahaz-tu dut [(*ba)-datorr-ela]
 know.PRF forget-PRF AUX *ba*-come-COMP
 'I have found out/forgotten that (s)he is coming.'

1.2 Noun phrases

Noun phrases have a very strict word order: adjectives follow the noun, determiners follow [N+Adj] and other modifiers - possessive phrases, postpositional phrases, relative clauses and most quantifiers - precede the noun.

15. [[[emakumearen] argazki_{NP}] a DP]
 woman-det.GEN photo the/a
 'the photograph of the woman'

A small subset of modifiers (Laka 1996) can either precede or follow the noun, namely: (i) modifiers with the morpheme *-dun*, which denotes a possessed entity *dirudun emakumea/emakume diriduna* 'a rich woman/a woman that has money'; (ii) modifiers ending in the morpheme *-tar*, which denotes geographic origin: *Gasteiztar laguna/lagun Gasteiztarra* 'the friend from Gasteiz'; (iii) modifiers without the morpheme *-tar* which also denotes geographic origin: *Frantses liburua/Liburu frantsesa* 'A french book'. It is worthy to observe that the 'head-final nature' of Basque does not provide a precise definition as head final language since it is considered as a language that exhibits a 'mixed head parameter' (Laka and Erdocia 2012).⁹

DPs are formed by a nominal part and by the possible 'case' morphemes attached to it. The last element of the DP can bear the determiner *-a/ak* (determinate, indeterminate and plural marker) (16):

16. a) Mutil-a
 Boy-det
 'the boy'
 b) Mutil polit-a
 Boy good-looking-det
 'the good looking boy'

⁹ The so-called 'disharmonic word-order' of numerous language is leading to a general revision of the traditional head parameter in favour of more flexible tools, such as a microparametric variation (Cinque 2017), to account for the great degree of variation that numerous languages exhibit in word order.

- c) Mutil polit-a hori
 Boy good-looking-det that
 'That good looking boy'

It is now important to provide a brief description of the Case system, which will be relevant for the discussion of several syntactic issues in later sections.

1.2.1 Case system

Basque has three Cases that *stantiate the grammatical relations between the verb and its arguments* (A. Elordieta 2001, p. 27) which have the role of subject, direct object and indirect object, namely: ergative, dative, absolutive (from now on: ERG, DAT, ABS).¹⁰

The number of arguments (that is, of Cases) that a verb can bear to produce grammatical structures, is the main criteria used by traditional grammar to categorize verbs.¹¹

Following the hypotheses in section 1.1, the basic word-order is S (IO) O V AUX that can be expressed, in term of case system, as follow: ERGATIVE DATIVE ABSOLUTIVE V AUX.

The Absolutive case is also called unmarked or null case, since it is not visible as a morpheme and it is considered as a marked & morpheme. An NP can bear the absolutive case in two contexts: (i) if it is the subject of a verb that only takes one argument, that is, if it is the subject of an intransitive verb: *emakumea* etorri da 'the woman has arrived'; (ii) if it is the object of a verb that takes at least two arguments, that is, if it is the object of a transitive verb: *emakumeak gizona* ikusi du 'the woman has seen the man' (Laka 1996, p.61).

The Ergative case is marked by the morpheme -k with possible epenthesis of -a/e depending on the phonetic environment. It marks the subject of sentences with transitive, ditransitive or unergative verbs:

17. a) Emakumeak gizona ikusi du
 woman-det.ERG man-det.ABS see.PRF aux.3SG.PRS
 'the woman has seen the man'
- b) Emakumeak gizoni kamiseta eman dio
 woman-det.ERG man.DAT shirt-det.ABS give.PRF aux.3SG.PRS.DAT
 'The woman has given the man a shirt'

¹⁰ NPs that can bear absolutive can, in principle, also bear a fourth case: the partitive. It is used only in certain contexts that I will not describe here, it is however important to notice that it could be roughly defined as a 'absolute negation' in sentences like: *ez dago jatetxerik* "there is no restaurant".

¹¹ For a discussion of the structural, rather than informational, nature of ergative see Rezac, Albizu, Etxepare (2010).

- c) Umeak barre egin du
 children.ERG laugh-LEX do.ASP aux.3SG.PRF
 “The children laughed”

Dative case is marked by *-i* with epenthesis of *-r-* if it follows a vowel. It is difficult to provide an exact account for the structures that can bear dative, I will thus simplify the issue, using the general definition provided by Laka (1996, p.64): *Dative case is given to the second object, or the indirect object in a verb that has three arguments* as in (18):

18. Jonek gizoni kamiseta eman dio
 Jon man.DAT shirt-det.ABS give.PRF aux.3SG.PRS.DAT
 ‘Jon has given the man a shirt’

In traditional grammars, the numerous nominal endings of Basque are described as part of the declension system of the noun, that is, as part of the case system. They can generally act as bound morphemes that follow the noun and express the grammatical function of an NP within a sentence. As observed above, they are treated as post-positions since they exhibit a mirroring behaviour of their English counterparts, according to De Rijk (2008):¹²

19. a) Venetiako kalea horren
 from-Venice street that-in
 ‘In that street of Venice’
 b) Hitzkuntzalari bat-entzat
 Linguist one-for
 ‘For a linguist’

There are also a series of post-positions (the term is used by traditional grammars too) that are orthographically realized as separate words (20):

20. Unibertsitatea-n ondo-an
 University-of side-in
 ‘Next to the university’

¹² De Rijk (2008) consider these endings to stand, from a syntactic point of view, midway between standard ‘case-marker’ and ‘prepositions’. He presents distributional differences among Basque, Latin and English.

All the above are essentially PPs and only ERG, DAT, ABS will be treated as Cases from a syntactic point of view since they are the only ones that need to be checked in the syntactic derivation.

1.3 Verbal group

As it has been observed at the beginning of this chapter, the vast majority of Basque verbs present a periphrastic conjugation, i.e. they are formed by two elements: the main verb, which appears in participial form, which is *adjectival in nature* (De Rijk, 2008), and the auxiliary, which is inflected.¹³

I will describe the verbal system starting from the discussion of the following example:

21. Emakumea	heldu	da
	woman-det.ABS	arrived.PRF aux.3SG.PRS
'the woman has arrived'		Laka (1996), 74 [1]

The sentence in (21) contains *heldu* ‘to arrive’ which is an intransitive verb, that is, it takes one argument, namely *emakumea* ‘the woman’. Being an intransitive, its auxiliary is the verb *izan* ‘to be’ which appears in the example in its third person singular form *da*. The information carried by the main verb (or ‘participle’) concerns lexical values and aspectual traits. The morpheme *-du* marks the perfective aspect, the morpheme *-t(z)en* in (22) marks the imperfective aspect and the morpheme *-ko* marks the unrealized aspect; compare (21) with (22), (23) and (24):¹⁴

22. emakumea	heltzen	da
	woman-det	arriving.IMP is.AUX
'the woman arrives' (but she is not here yet)		

¹³ In 1996, *The grammar of the Royal Academy of Basque Language (EGLU)* estimates that in modern spoken Basque there are only about ten verbs where synthetic forms are used. Some other verbs are used synthetically only in a few forms, and finally there is a third set of verbs which are occasionally used in synthetic fashion in literary language. The verbs listed above do not appear to share any particular semantic values, but they do share ending-morphemes which are considered to be productive during early stages of the language (Laka, 1996 2.2).

¹⁴ The perfective morphemes are *-du*, *-i*, *-n* and they realize the ‘basic form of the verb’, the participial one, which is the citation one (e.g. in dictionaries). The root of the verb, that is, the radical with no suffix, is used in non-finite clause based on a *wh*-complementizer (*Zergatik herrira jaits?* “why go down to the village?” example by De Rijk 2008).

23. emakumea helduko da
woman-the arrive.FUT AUX
'the woman will arrive'

24. emakumea heldu zen
woman-the arrive was
'the woman arrived'

It is important to notice that the aspectual difference between the three sentences is based on the fact that (24) identifies a finished event 'the woman arrived=she is here', while (22) an unfinished one. The translation of (23) could be misleading since I used a *FUT* mark and a future tense for reason of clarity, but, according to Haddican (2006), the affix *-ko* is not a tense mark, but rather an aspectual one, namely, (23) describes an event that has not taken place yet. The tense is expressed by the auxiliary *da* which is the present tense of the auxiliary *izan* 'to be'.

The auxiliary carries the information about tense (present/past); phi-features (number, person and, in certain varieties, gender of the addressee) and can be very complex, encoding information about every case-bearing DP. To summarize, the inflection of auxiliaries (or synthetic verbs) can carry information on:

- (a) the arguments of the verb; person, i.e., first, second or third and number, i.e., singular or plural. In some varieties, especially in the eastern dialects, the auxiliary carries information about the gender of the addressee;
- (b) the tense of the sentence, i.e., present or past, or neither one;
- (c) it can mark a modal force of the sentence and if so, of what kind;
- (d) it marks the sentence as matrix or embedded, and if so, of what kind;

The auxiliary expresses all these features by means of clitics and other morphemes surfacing in the following order: *absolutive clitic – tense/agreement – dative clitic – ergative clitic – (complementizer agreement – in Bizkaian dialect) – complementizer* (Arregi and Nevins 2012).¹⁵

The verbal paradigm consists of five moods: indicative, conditional, subjunctive, imperative and potential. The indicative has six tenses and it is formed by the combination of the participle

¹⁵ Arregi and Nevins (2012) propose an analysis that differs from the previous ones for several aspects, in particular as far as the categorization of morphemes which form the auxiliary are considered as clitics generated via movement in the syntactic derivation.

and the auxiliary, the former specifying the aspectual value and the latter providing information about the tense of the verbal complex.¹⁶

The possible auxiliaries are *ukan* ‘to have’, as in (25a), for the sentences in which an ergative subject is required, and *izan* ‘to be’ for the other cases, as in (25b):

25. a) zu eta biok liburuak irakurri d-it-ugu
you and I.ERG books.ABS read.PRT have.AUX
'you and I have read some books'
- b) nire lagunak etorriko dira
my friend.PL arrive.FUT are.AUX
'My friends will arrive'

The presence of a dative case in the sentence does not affect this contrast, but the auxiliary will change its form in order to show agreement with the three elements involved:¹⁷

26. guk ikasleari liburuak eman di-zki-o-gu
we.ERG teacher.DAT books.ABS given have-PLUR-to_him-we
'We have given (the) books to our teacher'
27. niri liburuak gustatzen zai-zki-t
I.DAT books.ABS like root-PLUR-to-me
'I like (the) books'

Verbal inflexion obligatorily agrees with all the three case-marked arguments and if any of the agreement clitics is missing, the sentence is ungrammatical (28):¹⁸

28. zuk niri etxea eman d-i-da-zu
you.ERG me.DAT house-det.ABS given it-have-me-you
'You have given me the house'
- *zuk niri etxea eman d-u-zu
You.ERG me.DAT house-det.ABS given it-have-you

Laka 1993, 23 [2]

¹⁶ I will leave out the discussion of the other moods, in that it would be out of the scope of this dissertation. However, a detailed description is provided by De Rijk (2008).

¹⁷ In point of facts *nori* auxiliaries (the forms used in dative structures) derive from extinct forms that I will not illustrate here. See Laka (1996) for discussion.

¹⁸ *The only exception to the obligatoriness of agreement clitics is found in Eastern dialects of Basque, where the dative agreement may be dropped in certain environments.* (Laka 1993)

The auxiliary can also contain a modal particle *-ke* which denotes potentiality and is used in hypothetical contexts:

29.	Mirenek	Jon	ikusi	d-eza-ke
	Miren.ERG	Jon.ABS	seen.PRF	him-root-mod
‘Miren can see Jon’				

As we can see, the participle in (29) lacks aspectual markers and the auxiliary carries both the ‘usual’ information and the modality values expressed by *-ke*.

Summarizing, table 1 illustrates the possible combinations of arguments by which Basque auxiliaries are described in traditional grammars:

NOR	NOR-NORK	NOR-NORI	NOR-NORI-NORK
ABS	ABS – ERG	ABS - DAT	ABS – DAT – ERG
1 argument	2 arguments	2 arguments	3 arguments
Etorri naiz	Nik zu ikusi	Niri hemen gustatzen zait	Nik zuri liburua eman dut
‘I have arrived’	‘I have seen you’	‘I like it here’	‘I have given you a book’

Table 1 – categorization of Basque verbs.

1.4 Syntactic structure

A number of theoretical accounts regarding the internal structure of Basque sentences have been proposed, starting by the seminal work by De Rijk (1978), in which he collected data to establish SOV as the informationally neutral word order. Following Greenberg’s categorization, he claims that Basque falls into the ‘head final’ typological group, having the following features: (i) V>AUX order; (ii) presence of postposition and (iii) SOV relative clauses. He also identifies a syntactic, rather than semantic, ‘focus feature’, responsible for the rightward movement that he named ‘focus positioning’ that places an element in front of the verb (*galdegaia*), creating an indivisible verbal cluster which is referred to as ‘verbal complex’. OV languages exhibit an exceptional amount of theoretical issues and various possible structures have been proposed. In this section, I will sketch a picture of the main theoretical proposals for the syntactic structure of Basque. Despite the fact that the study of the surface

linear order of the constituents is problematic for several reasons, it is generally accepted that the unmarked order for a declarative sentence in Basque is S>(IO)>O>[V+AUX] illustrated in the following example:

30. ikasleak irakasleari liburua eman diote
student-det.ERG professor.DAT book-det.ABS give.PRF aux.3SG.PRS
'The student has given a book to the professor'

Both theoretical works (Ortiz de Urbina 1989; Laka 1994 among others) and experimental results (Hidalgo 1994, Aldezabal et al 2002) confirm this claim. One of the first elements that turned out to be problematic is the status of auxiliaries, which have been claimed to have a 'clitic-like nature' (Mitxelena 1958) and needs to be lexicalized at PF in order to be phonetically realized.¹⁹

Sentences like the one in (31) are ungrammatical for the lack of (at least) one element placed before the auxiliary:

31. *du Jonek emakumea ikusi
Aux.3SG.PRS Jon.ERG woman-det.ABS seen.PRF

This first observation leads to the assumption that the main verb and the auxiliary should be treated like a single compound and the possibility for the auxiliary to precede the lexical verb in certain structures (e.g. negative sentences and clefts), despite the apparent indivisibility of the sequence [V+AUX], have turned out to be problematic in the syntactic representation of Basque.

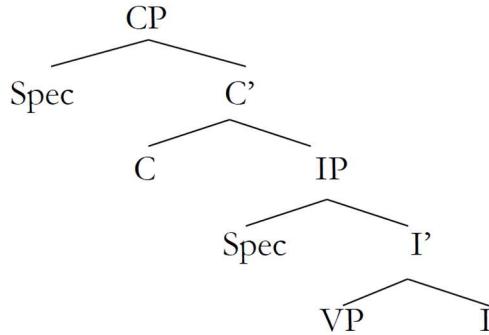
In the following sections I will present some of the proposals for the sentence structure of Basque that have been formulated in the past 30 years.

1.4.1 Ortiz De Urbina (1989)

The structure proposed by Ortiz De Urbina (1989) is strictly related to his hypothesis regarding focus-structures and *wh*-structures in which *foci* and *whs* move to [Spec, CP] to take scope over the sentence (32):

¹⁹ In Elordieta, Arantzazu. 2001. *Verb movement and constituent permutation in Basque*. Leiden: Leiden University dissertation.

32.

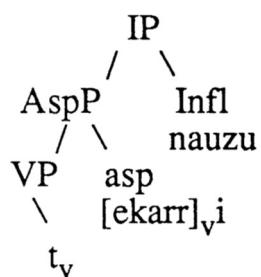


In this structure the subject moves to [Spec, IP] and the object is generated in VP. I will analyse his proposal, along with his following works, in the next section. The structure in (32) is important since it is the first structure proposed for Basque in the framework of *X-bar theory*. Ortiz De Urbina (1989) assumes that the syntactic tree drawn for Basque is right-branching.

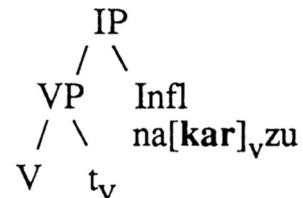
1.4.2 Laka (1990) and Arregi (2003)

Laka (1990) proposes the presence of an ‘Aspect’ head between VP and IP that blocks V-to-I movement in periphrastic constructions. *Synthetic forms have a punctual aspect meaning but no overt aspect marker [...] the generalization is that an overt aspect marker prevents raising of the verb to Infl* (Laka 1990, p.22). This generalization seems to correctly account for the fact that periphrastic verbs are indeed separable, being two distinct morphological words as shown in (33a), while synthetic forms are not (33b):

33. a)

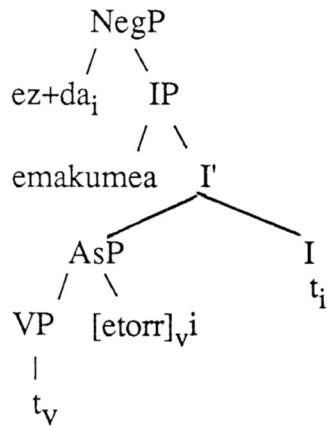


b)



AspP is right-headed by an overt aspectual morpheme if the verb is periphrastic. If not, V moves to I to form the inflected, synthetic verb that does not show any overt aspectual marker. In negative structures the head of NegP, which is generated above IP, triggers leftward movement of IP and this results in the standard orders for clausal negation: NEG > AUX > S > O > V/NEG > InflV > S > O:

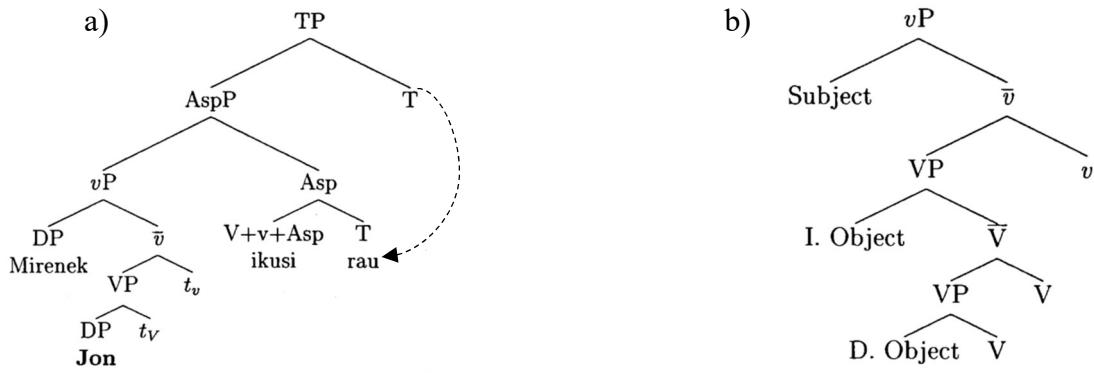
34. Ez da emakumea etorri
 neg aux.3SG.PRS woman-det.ABS arrive.PRF
 ‘the woman has not arrived’



Following Laka (1990, 1993), Arregi (2003) assumes (35a) to be the complete structure of a transitive sentence and (35b) to be the structure of the vP of a ditransitive sentence: In (35) the object is generated inside the VP and the Subject in [Spec, vP]. The complex [v+V] moves to AspP which encodes the aspectual information and then AUX is lowered to be interpreted at the PF by means of the *Morphological Merger* which is *a lowering operation [...] merger applies after the auxiliary has been adjoined to T*. Arregi thus claims that *the participle and auxiliary are morphologically separate words due to the absence of movement of the verb to T, and they are phonologically a single word due to merger applying late at PF* (Arregi 2003, 115-116). Arregi confirms Laka’s analysis claiming that the difference between synthetic and periphrastic verbs is that in the latter there is no Asp-to-T movement. Note that Arregi’s structural proposal is developed within the theoretical framework of ‘Distributed Morphology’ (Halle and Marrantz 1993) and thus, he assumes that the operations responsible for linearization are post-syntactical, that is, the syntactic representation in (35) does not contain any precedence relation (Arregi and Nives 2012).²⁰

35. Mirenek Jon ikusi rau
 Miren.ERG Jon.ABS seen has
 “Miren has seen Jon”

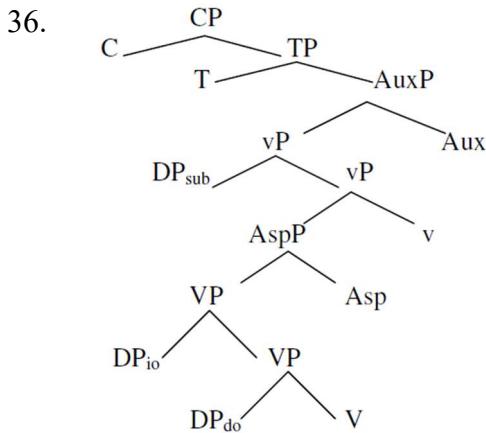
²⁰ In (35) I use the example in Arregi (2003) which represent the *Ondarroan* dialect, instead of the *Euskara Batua*, the standard variety I am referring to in this dissertation.



1.4.3 A. Elordieta (2001)

An alternative account is proposed by A. Elordieta (2001), who adopts the theoretical framework of the ‘Minimalist Program’ (Chomsky 1995). She claims that the auxiliary heads a node AuxP and that T, like the other non-L-related heads, is left headed (36). As I showed above, Ortiz de Urbina (1989) provides evidence that C is indeed head initial and this assumption is based on the fact that in constructions involving operators (e.g. wh-questions and negative sentences) the inflected auxiliary appears on the left of T (infl in Ortiz De Urbina labelling).²¹

The structure proposed by A. Elordieta (2001) is the following:



In (36) it is assumed that ergative Case is checked in T which has a strong D (EPP) feature and this triggers movement of the DP bearing ERG to [Spec, TP]. AspP has a strong [absolutive] feature and vP has a strong [dative] feature. This triggers overt movement of VP-internal arguments i.e. the DP bearing ergative Case raises to [Spec, TP]; the DP bearing absolute Case moves to [Spec, AspP]; and the DP bearing dative Case moves to [Spec, vP] to license

²¹ Laka (1990) posits the presence of silent *focus-operator* higher than Infl.

their corresponding Cases. On the assumption that the verb successively raises to v, the movement of the indirect object DP to [Spec, vP] does not violate Minimality, since after V-to-v raising, the indirect object and the direct object are in the same minimal domain of v. *This view on phrase structure accounts for the fact that V and Aux are sentence-final in canonical contexts, rise to the left of vP internal material when V raises to the functional domain in negative, interrogative and sentence-initial focus constructions.* (A. Elordieta 2001, p.29). Aux moves to CP or NegP in those contexts in which it is required that the inflected verb or the [V+aux] complex appears on the right of the negative operator, the focus element or the wh-element.

1.4.4 Haddican (2006)

Following previous works such as G. Elordieta (1997) that I will present below, Haddican (2006) claims that despite a surface SOV order, Basque is actually a head initial language. This proposal is based on the analysis of the surface order of those elements that can appear between the auxiliary and the participle. As I pointed out in the previous sections, it has been claimed that the so-called [V+Aux] complex is almost inseparable (Ortiz de Urbina 1989; Laka 1990; A. Elordieta 2001; Arregi 2003) and treated like a single element as far as word order is concerned. However, this is not by all means true considering, for instance, the standard negative order repeated in (37):

37. Ez du Jonek emakumea ikusi
 Neg aux.3SG.PRS Jon.ERG woman-det.ABS see.PRF
 ‘Jonek hasn’t seen the woman’

In principle the lexical verb can appear to the right of the auxiliary (*ez du ikusi Jonek emakumea*), but the unmarked order of negative structures is characterized by the fact that the auxiliary raises while in general, the participle remains *in-situ* (see the generalization in note 2). Negation is not the only context in which the auxiliary can precede the participle and there are also other elements that can intervene between V and the auxiliary in declaratives, namely: modal-like verbs, like *behar* (38); a modal particle like *omen* (39) or any possible constituent in the cleft-like sentence in (40):

38. Jonek emakumea ikusi behar du
 Jon.ERG woman-det.ABS see.PRF have-to aux.3SG.PRS
 ‘Jon must see the woman’

39. Jonek emakumea ikusi omen du
 Jon.ERG woman-det.ABS see.PRF Mod(evid) aux.3SG.PRS
 ‘Apparently, Jon has seen the woman’

40. Emakumea du Jonek ikusi
 Woman-det.ABS aux.3SG.PRS Jon.ERG see.PRF
 ‘It is the woman, that John has seen’

The only constraint is that the auxiliary must be preceded by an element to which it can be phonetically bound to be interpreted at PF, as claimed by Arregi (2003). Modal particles cannot intervene in the same position when a *wh*-structure is involved, and they are not able to lexicalise the auxiliary when they precede it, being clitic themselves (Laka 1996). It is worthy to focus on these elements, which have been analysed by Haddican (2006) who shows how their order respects the merge ordering proposed in Cinque (1999) for adverbial heads:

PARTICIPLE > **Al** Mood(speech act)> **Ote** Mood(evaluative)> **Omen**
 Mood(evidential)> **--en** T(past)>**-ko** T(future)> **Behar** Mod(necessity)> **Ohi**
 Asp(habitual)> **Nahi** Mod(volitional) **-t(z)en/-tu** Asp(perfect)> **Berri**
 Asp(retrospective)> **ari** Asp(progressive)> **AUXILIARY**²²

Moreover, only these same elements can surface between the negative operator *ez* and the auxiliary. This is shown in (41):

41. Ez al zio-n galde-tu-ko?
 neg Mod.speech-act aux.3SG.PST ask.IMP.FUT
 ‘Wasn’t she going to ask him (that)?’

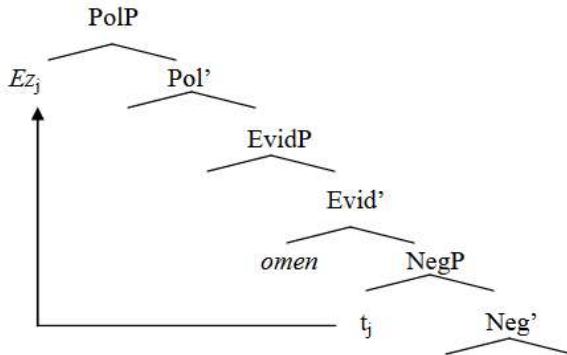
In (41) the first two functional morphemes appear in the predicted order while the final three morphemes appear in the mirrored order *V* > *Asp(Perfect)* > *T(future)*. Cinque (1999), proposes the following ‘roll-up’ type of derivation, in line with Kayne (1994), to account for OV orders that are the precise opposite of the input order:

42. X [Y_P...Y ZP]...→...X [Y_PZP Y t]...→...[Y_PZP Y t_{ZP}] X t_{YP}

²² All of these elements can precede the participle, but for the purpose of his analysis Haddican (2006) accounts only for the one that can divide the pattern *V* > *AUX*.

According to Haddican (2006), several data show that this movement successfully predicts the surface order of negative sentences but not the one in declaratives. He thus follows the assumption in Cinque (1999) that *negative sentences are closer to the underlying order than the affirmatives*. In order to meet the conditions of ‘antisymmetry’ (Kayne, 1994) he argues that *the negative order Aux-V is the merged order and that the affirmative V-Aux order is produced by raising of the VP to a higher, polarity-related position called PolP* (Haddican 2006, 1):

43.



It is argued that [Spec, PolP] is indeed the landing site of both the negative marker *ez* and of VP. Evidence for this movement comes from the scope interaction between *ez* and preverbal particles illustrated in Haddican (2006). However, it has been pointed out (Laka and Erdocia 2012) that this configuration can generate ungrammatical focus constructions like (44), in which the focused element is not in the position of the *galdegaia* described in section 1.

44. *JONEK Miren ikusi du
 JON.ERG Miren.ABS seen.PRT has.AUX
 ‘Jon has seen Miren’

Haddican’s proposal is one of the many accounts developed respecting Kayne’s (1994) hypothesis and the claim that the underlying, universal word-order is SVO with a Specifier – Head – Complement configuration. I will present the structure proposed by Elordieta (1997), but other head-initial structures for Basque have been proposed also by Ormazabal, Uriagereka and Uribe-Etxebarria (1994) and Albizu (2005).

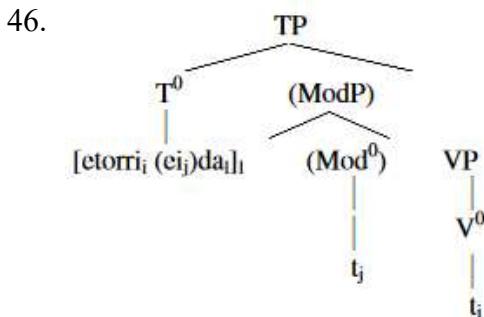
1.4.5 G. Elordieta (1997)

G. Elordieta (1997) proposes a structure compatible with *antisymmetry* (Kayne 1994), treating Basque as a head initial language whose underlying order is SVO. This view challenges the traditional assumption that Basque has a basic SOV structure (Ortiz de Urbina 1989; Laka

1990; A. Elordieta 2001), but it accounts for the correct surface order of the non-nominal heads of the sentences with the surface orders in (45):

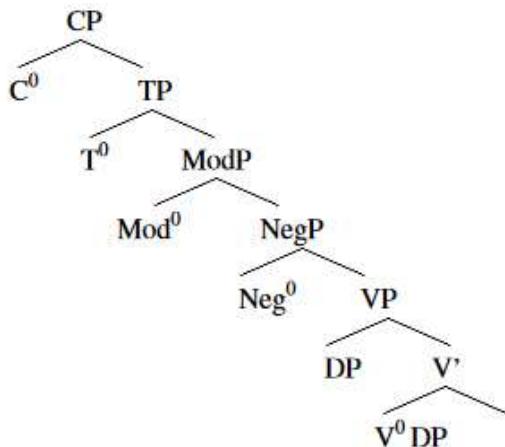
45. a) Participle > inflected auxiliary: *etorri da*
come aux
- b) Participle > modal > inflected auxiliary: *etorri ei da*
come mod aux
- c) Negation > inflected auxiliary > (...) > verb > (...): *ez da iñor etorri*
neg aux anybody come
- d) Negation > modal > inflected auxiliary >---> verb : *ez ei da iñor etorri*
neg mod aux anybody come

In a sentence with a modal particle (to be more precise with any of the elements analysed in Haddican 2006) like *etorri ei da* ‘he/she sure has come’, whose structure is in (46), the Mod-head is only activated if a particle is inserted, if not, the participial verb moves to T where the auxiliary is generated. Following Kayne (1994), G. Elordieta (1997) assumes that only left-adjunctions are possible, and that surface order is obtained in a similar way, with the participial verb raising to T by head-to-head movement, incorporating the modal particle on its way up.



The overall structure he proposes for Basque is hence the following:

47.



In negative sentences only, the auxiliary appears in TP and it is in the scope of the negative operator which moves to CP (Ortiz de Urbina 1989). The participle remains *in-situ* or moves in order to surface at the right of the auxiliary (see note 2). In *wh* and focus structures *the verbal* (inflected) *elements raise to C to enter in a Spec-head relationship with the element in Spec, CP, along the lines of Rizzi's wh-criterion extended to all operator-involving constructions.* (G. Elordieta 1997, p.62). This has been claimed to be the position in which focus elements move when left-dislocated (sentence initial) focus constructions are involved.

Conclusions

In this chapter, I have presented some basic information regarding the grammar of Basque, a language which exhibits a great degree of freedom in word-order and that, despite its general ‘head-final’ nature, has some interesting properties that need to be investigated to have a clear proposal to account for some peculiar features. In particular, the syntactic structure of Basque is not yet clear and two main structural configurations have been proposed: one that considers SOV to be the underlying order and one that claims that this is the derived structure, while negative clauses provide evidence for a deep SVO order. This reflects a general debate that concerns several languages whose properties need to be studied in depth to confirm, or to reject the hypothesis of a universal, underlying SVO order (Kayne 1994). I will deal with these issues again in chapter 3 when I will review the evidence for the existence of a low-peripheral portion of the clause.

The possible word-order plays a central role in the analysis of focus constructions in Basque which needs that the canonical word-order changes in order to have a focus interpretation for a given sentence. In the next chapter, I will present the linguistic phenomenon of focus and I will review the main proposals that deal with this category in the Basque language.

2. DEFINING FOCUS

The linguistic analysis of a language cannot disregard the grammaticality judgments that the native speakers of that language can provide. In other words, in order to consider a structure grammatical, it must be recognized as such by native speakers. However, while certain structures can be interpreted easily by any native speaker of a language in an ‘out of the blue’ context -- meaning a neutral context in which no previous information is provided -- others need a referent which can be present in the extra-linguistic reality (i.e. the context) or in a previously uttered structure (i.e. discourse). Consider the sentence in (1), which is a well-formed sentence of English that provides new information and that can be interpreted out-of-the-blue and compare it with example (2). The latter is also a grammatical sentence, but it cannot be interpreted without a reference for the demonstrative pronoun *that* which is an indexical element, that is, it needs a context to be interpreted. In particular, *that* can refer to (1), e.g. *that John sees Mary happens very often* or to the extra-linguistic reality exemplified in (3), in which case (2) is referring to the event witnessed by the participants to the conversation.

1. Today John has seen Mary
2. That happens very often
3. [*Two cars have just crashed while we were looking at the crossroads in front of my house*]

In other words, (2) cannot be understood despite its being a well-formed sentence of English, if no informational background is provided. Hence, the information that speakers share, constantly change due to contextual or co-textual reasons. These considerations lead to two important definitions for pragmatics-related topics, namely the concept of *new information* and the one of *given information*. The issue goes way beyond the scope of this dissertation and thus, I will make use of examples (4) and (5) to define *new information* as the sentence (or the part of it) that could in principle stand with no context provided whatsoever (4) and *given information* as the sentence (or the part of it) whose meaning is *salient in a given context* (Büring 2016, p.18), (5).

4. Sinatra’s reputation among industry musicians grew swiftly
5. James always supported the singer.

Büring 2016, 18 [1] adapted

The informational content of a sentence is directly related to the so-called ‘common ground’, i.e. the set of the information that can be taken for granted by the participants to a conversation. *Focus* is of course strictly related to information structure to the extent that part of a sentence containing focus is backgrounded, or marked as ‘given’, and the rest is, pragmatically speaking, ‘prominent’, that is, new information.

Languages exhibit a variety of strategies to mark focus which involve different aspects of grammar: syntax, prosody or morphology, as I will show later in the chapter. This clearly makes difficult to provide an exhaustive definition of this phenomenon, that needs to be carefully analysed from different perspectives. Büring (2016, p.19) claims that *focussing is a relation between [...] a focus, a ‘focus domain’, and a context*. Focus properties must be studied in order to provide a more fine-grained definition of it, which needs to include different aspects of grammar to account for the peculiar nature of the phenomenon.

2.1. Semantic values of focus

Rooth (1992 and subsequent works) provides a definition of *focus* as an element that activates a set of relevant alternatives for the ordinary semantic value of a given phrase. For instance, the ordinary semantic values of an expression, represented as $[[E]]^o$, is substituted by $[[E]]^f$ where the exponent represents the set of F-alternatives to E. In example (6), for instance, $[j, m] \in E$ where E is the set of individuals:

6. $[[_F \text{ John}] \text{ loves Mary}]^f = \{\text{love}(x, m) | x \in E\}$
 $[\text{John loves } [_F \text{ Mary}]]^f = \{\text{love}(j, y) | y \in E\}$ Rooth 1992, [2] adapted

How to derive the $[[.]]^f$ value goes beyond the scope of this dissertation. I will maintain the core idea that information focus provides a set of alternatives for a specific position and that contrastive focus is the result of the modification of that set. Nevertheless, as stated above, focus phenomena affect every aspect of grammar and focus can be marked by both syntactic and phonological operations, e.g. movement of focus phrases and/or different intonation contour.

In Büring’s (2016) terms, the $[[.]]^f$ portion of a sentence is referred to as ‘focus domain’ (F-domain) and the non-focused elements within the F-domain are in the ‘background’ of the F-domain itself. Traditionally, two types of *foci* are identified: information focus (IF) and contrastive focus (CF). Certain languages do not have different strategies to mark the two types

of focus (Modern Eastern Armenian), while others mark contrastive focus via a syntactic operation (e.g. Italian) or a purely prosodic one (e.g. Slovenian). I will sketch below some of the key features of both types of focus.²³

2.1.1 Information focus

Information Focus (IF) represents the neutral focus and it is well exemplified as the phrase that answers a *wh*-question. It provides completely new information, or it can increment the common-ground that participants share, but it is not related to any previously mentioned or contextual element. The focus reading can involve one or more phrases, depending on the size of the *wh*-constituent (7):

7. What happened?

[John has seen Mary]_f

Who has John seen?

John has seen [Mary]_f

According to Kiss (1998), the *wh*-element activates an open set of alternatives that do not need an antecedent, in the answer, the appropriate one is chosen. IF is characterized by bearing sentence stress and, in several languages -- e.g. Italian -- it appears in final position, as a consequence of the tendency to move new constituents in a ‘later than usual’ position, according to Drubig (2001):

8. a) Chi ha visto Gianni?
Who aux.3SG.PRS see.PRF Gianni
‘Who did Gianni see?’
- b) Gianni ha visto Maria
Gianni aux.3SG.PRS see.PRF Maria
‘Gianni saw Maria’
- c) *Maria Gianni ha visto
Maria Gianni aux.3SG.PRS see.PRF

As far as Basque is concerned, according to most of the literature, IF must appear in the immediate pre-verbal position, but the pattern [Foc+V] can in principle appear in any other

²³ See Bianchi, Bocci, and Cruschina (2015) for Italian, Giorgi and Haroutyunian (2016) for Armenian and Stopar (2017) for Slovenian. However, contrastive focus is not necessarily marked exclusively by a single operation in a given language (e.g. Italian contrastive focus can be fronted and have a particular prosody).

position in the sentence. Both (9b) and (9c) are appropriate answers to the question in (9a) while (9d) is not felicitous in the given context since the focus reading would fall on *Jon*:²⁴

9. a) Nor ikusi du Jonek?
 ‘Who.ABS see.PRF aux.3SG.PRS Jon.ERG ?’
 ‘who did Jon see?’
- b) Miren ikusi du Jonek
 ‘Jon saw Miren’
- c) Jonek Miren ikusi du
 ‘Jon saw Miren’
- d) *Miren Jonek ikusi du
 ‘it was Jon that saw Miren’

From an interpretative point of view, IF has been identified as the portion *Y* of the sentence *X* that predicates over a *Topic Z* (Gundel & Fretheim, 2004), i.e. the given information; this is particularly clear when *whs* are involved. In the case of (9), the given portion of the structure is the event *someone has been seen by Jon* and the focus interpretation falls on *Miren*, that is, the appropriate alternative within E that can fill the position occupied by the *wh*, i.e. the object.

2.1.2 Contrastive Focus

Contrastive Focus (CF) is a particular type of focus that can be responsible for the correction of a previous utterance or for the selection of an appropriate alternative, i.e. it needs an antecedent in the context. The latter is referred to as the *target of the contrastive focussing* (Büring 2016, p.21) that is, part of $[[E]]^f$ which is the closed set of F-alternatives. The set of alternatives could be represented as $[[E]]_x$ where $[[E]]_x$ is a slightly smaller set of alternatives, namely, the set of all individuals excluding *x* which is the given information that is corrected. CF denies and corrects a previous utterance, or it presents (at least) two alternatives salient in the discourse (Krifka 2008):²⁵

10. a) Mark saw Mary
- b) (no,) JOHN saw Mary

²⁴ Since the word order is not the canonical one, the possible wide focus reading is banned and only *Jon* is focalized.

²⁵ Bianchi, Bocci, and Cruschina (2015, 2016) propose a crucial distinction between *contrastive* and *corrective* focus. I will present their proposal later in the chapter.

In other words, focus replaces a previously mentioned item by means of one of the possible alternatives and this results in a structure which is closely related to the co-textual one, i.e. the F-antecedent (Büring, 2016). Nevertheless, the CF-structure in (12), represents a felicitous reply to all the structures in (11) which, however, do not always entail a correction:

11. a) John bought a yellow car
b) John bought some kind of car
c) John bought a big car

12. John bough a RED car

While the pair (11a-12) clearly represents a focus of correction, the other couples have different properties, namely (11b-12) expresses an elaboration of the F-antecedent and (11c-12) is an instance of ‘unrelated contrastive focus’ in the terms of Büring (2016), that is, a contrast which is not obvious and that entails different pragmatic considerations (the two speakers do not share the same opinion about what is the salient feature of John’s new car). The observations above led several scholars to investigate the grammatical properties of different types of focus, which exhibit particular features in many languages. In Italian, for instance, only CF can be fronted in [Spec, FocP] in the layered CP proposed in Rizzi (1997):

13. a) Gianni ha visto Veronica
Gianni aux.3SG.PRS see.PRF Veronica
'Gianni saw Veronica'

b) Gianni ha visto MARIA (, non Veronica)

c) MARIA, Gianni ha visto (, non Veronica)
'Gianni saw MARIA(, not Veronica)'

Therefore, the notion of focus needs to be investigated further to account for the properties that different types of focus constructions have in terms of semantic values, syntactic distribution, prosodic contours and morphological form.²⁶

²⁶ Languages vary greatly in the means by which they mark focus: Bantu, for instance, marks morphologically the verb that precedes a term-focus constituent (Der Wal 2014).

2.2. Focus typology

As stated above, information focus provides new information, i.e. information that cannot be retrieved neither from the extra linguistic context nor from the discourse. On the other hand, contrastive focus singles out an element as a contrastive item, making use of both new and given information. In other words, CF needs an F-antecedent to be interpreted which can be previously mentioned (14) or be present in the context in which the sentence is uttered (15).

14. a) Should I buy the shirt or the jacket?
b) You should buy THE SHIRT (, not the jacket)

15. a) [my friend John is hungry, but I know he is on a diet]

b) You should eat a salad! (not a hamburger) Dal Farra (2018), adapted

To be more precise, as I have showed in the previous section, while CF needs an antecedent to be interpreted, IF does not need a particular context to be uttered and in fact, it is potentially found in any sentence that brings new information to the common ground. Therefore, the two types of focus are independent from one another. However, the definition of contrastive focalization seems to be too wide to account for the various interpretations that this type of *foci* can entail (compare 11 and 12).

In the next subsection I present some of the types of focus identified in the literature.

2.2.1 Contrastive focus and corrective focus

Bianchi, Bocci, and Cruschina (2015, 2016) make a distinction between purely corrective focus and contrastive focus based mainly on Italian data. The former must contain at least one of the alternatives activated by the context, while the latter does not:

16. a) Il mio amico Gianni ha fame, ma so che è a dieta.
'My friend John is hungry, but I know that he is on a diet.'
- b) Ti conviene mangiare un'INSALATA (, non la pasta).
To.you be.better eat a salad not the pasta
- c) *Un'INSALATA ti conviene mangiare (, non la pasta).
a salad to.you be.better eat not the pasta
'You'd better eat a salad (, not pasta).' Dal Farra, 2018 [4]

According to Bianchi (2015), in (16b) the context contains a salient alternative to the focalized element *un'insalata* ‘a salad’ (namely any other food not appropriate for a diet). However, the alternative and the contrast are both expressed in the same speech act at the same time. (16c) is ungrammatical because the focus is not realized *in-situ*, while, as showed in (17), corrective focus can be fronted:

17. a) L'altra sera a teatro, Maria si era messa uno straccetto di H&M.
the other night at (the) theater Maria wore a cheap-dress from H&M

- b) Si era messa un Armani, non uno straccetto di H&M
(she) wore an Armani (dress), not a cheap dress from H&M

Bianchi & Bocci, 2012 p.2 [3];[4]

2.2.2 Exhaustive focus

From the interpretative point of view, according to Kiss (1998), a major difference between IF and CF interpretations is related to the notion of exhaustivity: only CF can have an exhaustive interpretation in Hungarian, while IF cannot. This led to the identification of an ‘exhaustive focus’ type. In this language, the distribution of the two types of focus is also different, being the pre-verbal position the host of CF (or exhaustive focus), but not of IF:

18. Tegnap este MARINAK mutattam be Pétert.
last night Mary.dat (I) introduced Peter.acc
'It was TO MARY that I introduced Peter last night.'

Kiss 1998, 247 [5]

According to Kiss (1998) the only way to express the same meaning in English is to use a cleft (19a), since (19b) cannot have the same exhaustive interpretation:

19. a) it was TO MARY that I introduced Peter (and no one else)
b) I introduce Peter TO MARY (and also to Mark)

As far as I know, exhaustivity cannot be expressed by means of the syntactic distribution of focus in any other language. For instance, Italian must use, e.g., an adverb like *solo* ‘only’ to narrow the alternatives activated down to one as in (20):

20. a) Hai comprato le pere
aux.2SG buy.PRT the pear.PL
'did you buy the pears?'

- b) Ho comprato solo le MELE
aux.1SG buy.PRT only the apple.PL.
'I only bought the APPLES'
- c) * Ho comprato le MELE (, e niente altro)
'I bought the APPLES *(, and nothing else)'*

The relation between exhaustivity and word order has been investigated also by Sainz-Maiz Lecanda (2017) who claims that the pre-verbal position in Basque is occupied by an exhaustive focus interpretation.²⁷

2.2.3 Mirative focus

Cruschina (2012) identifies a further type of focus which he baptizes ‘mirative focus’ which expresses surprising and unexpected information, that is, not yet part of the knowledge of the interlocutors. It does not need an F-antecedent, thus, it can be uttered out of the blue and it is realized using a particular prosodic contour:

21. a. Pensa te! DI VENTI KILI è dimagrito!
think you of twenty kilos he.lost.weight
- b. Pensa te! È dimagrito DI VENTI KILI!
think you he.lost.weight of twenty kilos
‘Guess what! He lost twenty kilos!’

Dal Farra, 2018 [7]

As shown in the example (21), in Italian, mirative focus can appear both in sentence-initial and in sentence-final position. Bianchi (2015) points out that in mirative focus not only the information but also a certain evaluative content is shared by the interlocutors. In the case of (21), neither the speakers, nor the hearer expected ‘him’ to manage to lose so much weight.

2.2.4 Syntactic distribution and pragmatic properties

As far as Italian is concerned, as I have pointed out above, the different types of focus have a different distribution, i.e. the left periphery position is licensed only for corrective and mirative focus, and, as well as every other type, they can also appear *in-situ*.²⁸

²⁷ However, I consider exhaustivity as one of the pragmatic features that focus can entail, but I will not talk about ‘exhaustive focus’ since the possible judgments on this matter appear to be the results of several different factors which tend to be arbitrary. A particular prosody could in principle lead my native-speaker judgment to consider possible the reading of (20c) as exhaustive, but this is clearly the result of speculation.

²⁸ Brunetti (2004) claims that left peripheral position is compatible with any kind of focus, however in those type of foci that seem not licensed in that position, ellipsis is nearly obligatory. Only when the focus background and the background of a previous utterance are identical, ellipsis becomes obligatory.

Therefore, from a pragmatic point of view, focus fronting is associated to a specific interpretation when the information is not part of the *natural expectations* of the participants to the conversation (Belletti and Rizzi, 2015) and the presence of different properties associated with different positions raises a number of problems.

According to the cartographic approach (Rizzi 1997; Cinque 1999 and subsequent works), every syntactic position is related to specific interpretative and prosodic properties that are read at LF and at PF respectively. Analogously to *wh* movement, triggered by a [+wh] feature in the left periphery that must be validated in a Spec-Head relation, focus fronting is triggered by a [+focus] feature in the left periphery (Rizzi, 1997). According to Rizzi's proposal (1997), however, given that focus often appears *in-situ*, but must move to check its feature, either the non-focalised part of the sentence moves to a higher position (i.e. [Spec, TopP]) or covert movement at LF takes place. According to Dal Farra (2018), a single [+focus] feature seems to not be able to account for the two possible positions that focalised constituents can occupy since every type of focus should move to the left-periphery. Following Neeleman et al (2009), Dal Farra (2018) proposes that [+focus] is a macro-feature which can be connected to one or more sub-features that enrich its semantic values. Such a proposal entails that there is only one focus position in the syntactic representation, given that co-occurrence of multiple-*foci* is not possible.²⁹

The typology of focus sketched above will be described as feature bundles composed as follows:

22. [+ focus]; [+ new] = new information focus;
- [+ focus]; [+ contrast] = contrastive focus;
- [+ focus]; [+ contrast]; [+correction] = corrective focus;
- [+ focus]; [+ mirativity] = mirative focus;
- [+ focus]; [+ exhaustivity] = exhaustive focus.

This feature-bundle driven approach can explain the different distribution of *foci* in different languages and, moreover, the possibility to have focus in different positions within the same language. The main claim is that focus can remain *in-situ* or move to a focus projection in the

²⁹ The issue is controversial since it seems to be possible to consider the answers to multiple-wh questions as different instances of focus. Dal Farra (2018) claims that they could be considered as part of macro-constituents that include the answers to every wh. Nevertheless, Basque exhibits the possibility to have multiple-foci structures. I will deal with this problem in the next chapter.

left-periphery, i.e. there is only one focus projection to which a constituent moves to check its [[+ focus] [+ X]] bundle of features.

I will come back to this hypothesis in the next chapter, when illustrating Basque data. Before going any further, I present the prosody driven approaches to focus phenomena.

2.3 Prosody-driven focalization

Several scholars claim that focalization is a prosodic phenomenon whose relationship with syntax is only marginal (Arregi 2003; Samek-Lodovici 2016; Büring 2016, among others) while prosody plays a crucial role in the realization of focus. Following Jackendoff (1972), Büring (2016, p.15) proposes a *Focus-Pitch Accent Relation* generalization that states that *the last default pitch accent within the focus is the last pitch accent in the sentence*. This is a direct consequence of the claim by Chomsky and Halle (1968) according to which focus must bear the main stress in a sentence. Samek-Lodovici (2016) proposes for Italian an account similar to the one proposed by Arregi for Basque (2003) and summarized in section 2.4.3: sentence internal *foci* are not moved but they remain in their sentence-final *in-situ* position and it is the rest of the sentence that is right-dislocated to avoid a wrong assignment of the main stress. The main theoretical problem that these accounts face is that the ‘T-model’ (Chomsky, 1995) would have to be revised since the prosodic structure, i.e. PF would communicate directly with LF. Moreover, according to Dal Farra (2018) Samek-Lodovici’s (2016) proposal does not take into account the different properties of the various kinds of focus-related phenomena, in particular concerning focus typology, such as the nature of the features that need to be checked in order to convey the appropriate meaning of the different types of focus that I presented in the previous section. Nonetheless, the fact that *foci* must bear sentence stress and that they have a particular intonational contour, must be considered when developing an account for focus phenomena, thus, the prosodic structure needs to be carefully analysed.

2.3.1 Basic notions of prosodic analysis

There are two ways to represent prosodic structures: ‘Metrical Structure’ (MS) and ‘Intonational Structure’ (IS). I introduce here the unified representation proposed by Büring (2016, p.134) which consists of hierarchically ordered prosodic constituents (as in MS), the element of which can be associated with tonal events (as IS). According to the latter, the word *introduction* has thus the following representation:

23. (x) prosodic word

(x) (x) foot

(x)(x) (x) (x) syllable

In-tro-duc-tion

Büring 2016, 134 [1]

Each layer identifies a prosodic unit, or constituent, and their metrical strength, i.e. the stress, that falls on the head of each one of them. If a prosodic unit contains a pitch accent (PA), the head of that constituent bears the pitch accent. The word *introduction* can contain up to 4 possible configurations: (i) the PAs fall on the foot of the word in *careful speech*; (ii) the (single) PA is on the third syllable in *faster speech/within larger utterance*; (iii) the PAs can be on the first three syllables in *over-enunciated speech* and (iv) the word can be deaccented, when it follows the pitch accented word of the sentence ('even GEORGE's book has an introduction') (Büring 2016, p.134).

As far as sentence structure is concerned, in a language like English two levels can be identified: the lower level is an intermediate phrase (iP) which contains at least one PA (represented as H*/L*) and a Phrase Tone on its right (Represented as H-/L-). The higher level is an intonational phrase (IP) which must contain an intermediate phrase and a Boundary Tone to the right (represented as H%/L%). The phrasal prosodic structure is organized in the same way as the word-level structure; the complete representation of the sentence 'Beverly likes Arkansas' is the following (24):

24. PA NPA

(x T%) intonational phrase

(x T-) intermediate phrase

(x)(x) phonological phrase

(x)(x)(x) prosodic word(s)

Beverly likes Arkansas

Büring 2016, 139 [9]

Where T is substituted with the appropriate tone.³⁰

³⁰ See Büring (2016, Ch.6) for a comprehensive analysis of more complex issues.

2.3.2 Information structure effects on prosody

According to the *focus realization condition* proposed by Truckenbrodt (1995) the highest prominence -- that is, stress -- in a focus domain falls on the focus itself. In other words, the PA falls on the head of a focalized prosodic constituent and according to the generalization introduced in 2.3 (Focus-Pitch Accent Relation), the last PA within an F-domain must be the last PA in a sentence. This entails that the answer to the question in (25) is an alternative version of (24) in which the nuclear PA falls on the first (prosodic) word:

25. Who does like Arkansas?

(x) iP/IP

$$(x \quad) (\quad [x] \quad) pP$$

(x) (x)(x) PWd

[BEVERLY]^F [likes Arkansas]

Büring 2016, 139 [11]

In order to obtain this outcome, two strategies can be employed: ‘iP/IP shifting’, that moves the iP/IP head to the left (leaving aside [pP]) or ‘post-focal p-phrase ellipsis’, in which the phonological phrase which is not part of the F-domains is deaccented. However, it has been noted that under certain conditions, elements which are *foci* from a semantic and pragmatic point of view are not accented (26):

26. (everyone knows that John only eats vegetables)

If even MARY knows that John only eat [vegetables]_f

(They shouldn't have gone to a steak-house)

Büring 2016, 139 [14]

Even and *only* are focus sensitive, i.e. Mary is the least expected person to know what John eats and that it is only vegetables that he eats. In other words, semantically speaking they are *foci* even if *vegetables* is not marked by a PA. Nevertheless, according to Beaver and Clark (2003), it is perceived as prominent, that is, it is prosodically marked by means of a stress at pP level. Büring (2016, p.177) provides the following generalization about second occurrence focus: *if a domain of a focus F is completely given and follows the last focus whose domain is not completely given, F is realized by stress, but not accent*. The post-focal p-phrase ellipsis strategy seems thus a weaker proposal than the iP/IP shifting one, since the former can account for a PA shift, with no further modifications in the pP layer which is responsible for the assignment of stress.

2.3.3 Italian focus, some special properties

As I have pointed out above, Italian focus constructions have some special properties which are worth investigating from the prosodic perspective. First of all, non-presentational *foci* exhibit very different prosodic contours than presentational (i.e. informational focus) and elaboration focus (i.e. contrastive focus). Secondly, Italian does not show the possibility to de-accent ‘givenness’. Regarding question-answer and elaboration focus in general, as noted by Zubizarreta (1998), both Italian and English need to have nuclear stress within the F-domain, but Italian does not allow NPA to appear in non-final positions.

Swerts et al. (2002) investigate de-accentuation of givenness in Italian by means of an experimental task in which Italian speakers needed to name the shape of a given colour to instruct another participant. The result shows that even when the colour remained the same, while the shape changed, 100% of the participants pronounced the colour with an accent: *triANGolo NEro > rettANGolo NEro* ‘Black Triangle > Black Rectangle’. The same task was then performed on Dutch speakers who accented the ‘contrastive’ portion of the utterance: *GEle Vierkamt > BLAUwe vierkant* ‘Yellow Square > Blue Square’. According to Büring (2016), assuming that givenness, i.e. G-Marking, is impossible in Italian would not provide an explanation for the givenness effects such as right dislocation, which is common in Italian and only possible with given constituents. However, NPA shift to the left is possible, as shown above, when I introduced the various types of foci that can be found, at least in Italian.

Compare for instance (27), a corrective focus, and (28) an informational one:³¹

27. a) la felpa, l'ha vinta Gianni
the sweatshirt it has won Gianni
'Gianni won the sweatshirt'

- b) No, LA MAGLIETTA ha vinto Gianni
no the T-shirt has won Gianni
'no, it is the t-shirt that Gianni has won'

28. a) Che cosa ha vinto Gianni?
What thing has won Gianni
'What did Gianni win?'

- b) ??LA MAGLIETTA ha vinto Gianni
the t-shirt has Gianni won

Brunetti, 2004 [99]

³¹ Example (27) is an instance of ‘Ctic Left Dislocation, a construction that have some peculiar prosodic and syntactic properties analysed in Giorgi (2010).

The focus fronting is only acceptable in (27) and this is in line with what I stated in 2.2.1 about corrective foci. As a native speaker of Italian, I could accept (28b) only in highly specific contexts, namely: it is the fifth time you ask me the same question and I want to put emphasis on the ‘focalized’ element. However, it seems to me that the prosodic contour is different in that case, and I am not sure it can be considered as an instance of focus at all.

2.3.4. Focus and main stress identity

The claims summarized above could lead to the generalization that identifies the focus position as the position of main sentence stress. However, Koch (2008, in Büring 2016) challenges this generalization, by pointing out that in Nlaka'pamuctsin (also known as Thomson River Salish), an Interior Salishan language spoken in British Columbia (CA), focus is only realized in the left edge of the clause, while nuclear stress falls on the rightmost position. Nlaka'pamuctsin is a VSO language in which focus is invariably found in post-verbal position and it must be adjacent to the verb. The same property is relevant for Western Bade (a West Chadic, SVO, language). On the other hand, crosslinguistically, there seems to be a position which can host narrow foci but that must be part of the Broad Focus interpretation.³²

Moreover, it seems that it can be identified the universal condition that broad focus interpretations must exhibit unmarked (in the case of Basque, canonical) constituent order (Büring 2016). If this generalization is on the right track, the apparent constraint to have the focus interpretation on the constituent that bears main sentence stress in certain languages is just a consequence of the fact that the canonical linear order (and prosodic structure) is required to have a grammatical broad focus interpretation. These data are crucial when considering main sentence stress as the unique tool to identify focus, e.g. in Arregi's (2003) proposal for Basque focus that I present in the next section.

2.3.5 In sum

Focus is a complex linguistic phenomenon that needs to be analysed from different perspectives, taking into account the variety of interpretations it can activate. Several proposals have been made to account for the distribution and for the prosodic realization of focus. In particular, crucial differences exist between information focus and contrastive focus and between the latter and a purely corrective one, which exhibits several specific properties in several languages.

³² Büring (2016) baptised this position ‘Focus Realization Position’ (FRP).

In the next section, after a brief review of the possible syntactic strategies to derive nuclear stress, I present some of the proposals put forth to account for Basque focus constructions which can be divided in ‘left-peripherical approach’ and ‘NSR approach’.

2.4 Focus in Basque

As I have already pointed out in the previous chapter, information structure plays a crucial role in determining the surface order of Basque sentences, in particular, the pre-verbal portion of the clause has been traditionally considered as the host position of focus. In other words, having a constituent in this position conveys a focus reading for that constituent. I recall here the definition of *galdegaia* given in 1.1.1. that is, the position in which ‘the most prominent element of the sentence’ surfaces. Among the different possible orders that a four-elements transitive sentence can exhibit (4! =24) the ERG > DAT > OBJ > [V+AUX] one has been claimed to be the appropriate response to a question like *zer gertatu zen?* ‘what happened?’ since it provides entirely new information. This configuration leads to a ‘broad/wide focus’ interpretation, i.e. the focus reading has scope on the whole sentence as in (29):

29. a) Zer gertatu zen?
 What.ABS happen.PRF aux.3SG.PST
 ‘What happened?’
- b) [Jonek Mireni kamiseta gorria eman dio]_{Foc}
 Jon.ERG Miren.DAT shirt-det.ABS red give.PRF aux.3SG.PRS
 ‘Jon gave a red shirt to Miren’

Considering the unmarked word-order, if the portion of the sentence that contains the required information is not the pre-verbal one, the sequence changes.

30. a) NORK ikusi du Miren?
 Who.ERG see.PRF aux.3SG.PRS Miren.ABS
 ‘Who has seen Miren?’
- b) JONEK ikusi du Miren
- c) Miren JONEK ikusi du
 ‘JON has seen Miren’
31. a) NOR ikusi du Jonek?
 Who.ABS see.PRF aux.3SG.PRS Jon.ERG
 ‘who has seen Jon?’

- b) MIREN ikusi du Jonek
- c) Jonek MIREN ikusi du
‘MIREN has (be seen by) Jon’

The generalization is that in order to interpret a constituent X as a narrow focus, the WO must respect the adjacency $X-[V+AUX]/Vinfl$. Moreover, focalized elements bear the prominent stress in the sentence (Chomsky and Halle 1968) which is labelled, as far as Basque is concerned, ‘focal accent’ in Hualde, Elordieta and Elordieta (1994).³³

To summarize the basic notions sketched above, there are two co-occurring devices to identify focused phrases in Basque: a syntactic one and a phonological one. However, this hypothesis leaves several open questions, both interpretative -- e.g. how can be the scope of focus reduced in order to obtain a narrow focus reading? -- and structural, e.g. what is the position of focus and how can we account for a verbal element in a focus position? Since the relation between focus and main sentence stress is crucial for our purposes, in particular considering the importance of nuclear stress for the identification of the focus in Basque sentences, I briefly introduce in the next section some of the strategies that have been proposed to identify the main (nuclear) stress in a sentence.

2.4.1 Sentence Stress

The earliest works on focus such as Chomsky (1971) and Jackendoff (1972) identify a strict correlation between focus and the position of the most prominent element, bearing sentence stress and containing the intonational nucleus, i.e. the accented syllable. In order to identify the *locus* of the nuclear stress, Chomsky and Halle (1968) proposed the first version of the ‘nuclear stress rule’ (from now on NSR), according to which the main stress of a phrase is assigned to the right-most element in that phrase. The operation is cyclical and identifies relative prominence of each phrase via a bottom-up derivation.³⁴

Using their terminology, the derivation in (45a, where α ; β ; γ are phrases and t ; u ; v ; w are words) marked each phrase as bearing *primary*, *secondary* etc. stress as in (45b):

³³ A. Elordieta (2001) identifies an asymmetry in the behaviour of adjuncts which can appear post-verbally in unmarked order and carry new information. They do not bear the main stress, thus, according to his view they are not instances of focus.

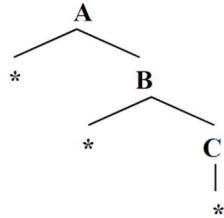
³⁴ The possible *one-step* operation has been rejected in subsequent works (Zubizarreta and Vergnaud 2000) and thus it has not been taken into consideration.

45. a) $(\alpha (\beta (\gamma t u) v) w)$

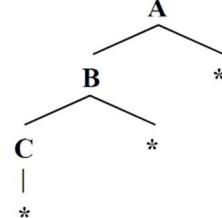
b) $t^4 u^3 v^2 w^1$

When primary stress is assigned, it automatically weakens the others. This view turned out to be problematic for several cases, in particular for a language like German, discussed in Höhle (1981). German has an OV order, and the constituent that bears the main stress is O and not V. The strategy termed ‘strictly syntactic approach’ in Zubizarreta (2016) proposed by Cinque (1993), predicts that sentence stress is assigned to the most embedded constituent on the recursive side of a given structure. Following the metrical NSR (Halle and Vergnaud 1987), the operation applies in a bottom-up way and derives in a cyclical fashion a metrical grid, assigning an asterisk to each node:

46. a)

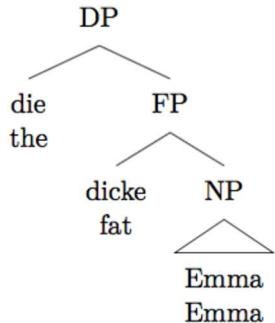


b)

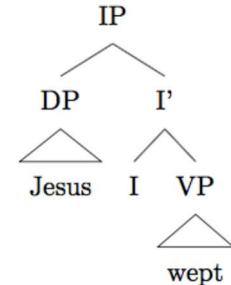


As far as OV languages (e.g. German and Basque) with a structure like (46b) are concerned, V asymmetrically C-commands O, and Cinque’s proposal thus correctly predicts that the main stress falls on the object, a puzzle unsolved in the classical version of the NSR. The same analysis holds for the German and English structures in (47a) and (47b):

47. a)



b)



Despite the correct predictions that it makes, the strictly syntactic approach has been challenged by several data from different languages (Gao 2016). As far as Basque is concerned, Arregi (2003) identifies several examples that do not respect Cinque’s generalization and proposes an

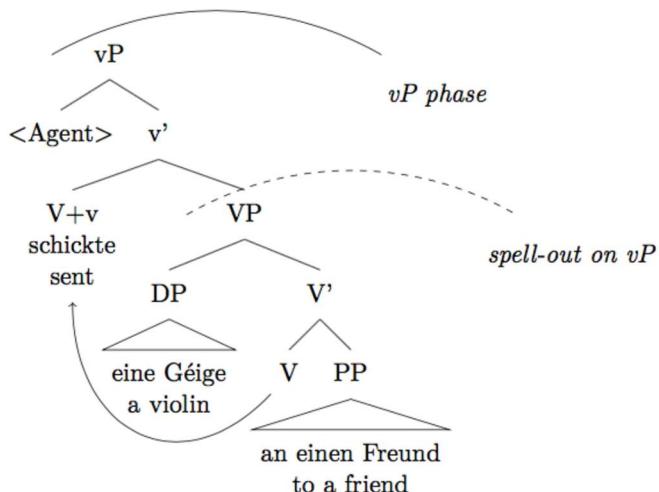
alternative formulation for the NSR based on Cinque's own revisions of the early proposal, namely that the sentence stress is assigned to the most embedded *branching* node.³⁵

On the other hand, the other syntax-related hypothesis identified as 'prosodic phonology approach' in Zubizarreta (2016) is a phase-based approach to account for sentence stress patterns, named 'Highest Phrase Condition on prosodic spell-out'. It has been proposed by Kratzer and Selkirk (2007) and it claims that it is the highest phrase, i.e., the least embedded, within a spell-out domain that receives stress. The syntactic representation of a sentence like (48) is illustrated in (49), where the object is in [Spec, VP] and the PP (dative) appears as V. The verb moves to v to check the [UV*] feature. The agent is not in vP, as it has moved to T which is not represented here in (49). According to Kratzer and Selkirk (2007), phase heads trigger the spell-out of their complement. The highest phrase within the spell-out domain on vP (i.e. VP) is the DP in [Spec, VP]: the 'Highest Phrase Condition' predicts that the main phrasal stress fall on that DP:

48. *eine Géige an einen Freund schickte*
 a violin to a friend sent
 sent a violin to a friend

Kratzer & Selkirk 2007, [22b], adapted

49.



Following Halle and Chomsky's (1968) *Nuclear Stress Rule*, Kratzer and Selkirk (2007) similarly propose that stress should fall on the rightmost member of a major phrase. However, according to Gao (2016), this last proposal fails to account for stress patterns of nominal phrases, which are instead correctly predicted by Cinque's (1993) NSR. I will not go here any

³⁵ I will present in the following section the NSR-based analysis of focus proposed by Arregi (2003), I will not go any further here because the rich argumentation made by Arregi goes beyond the scope of this dissertation.

further into the analysis of the stress-pattern-deriving strategies, but I will consider Cinque's proposal as more accurate, despite the need of more data about stress patterns in the languages of the world in order to confirm its predictions.

2.4.2 Previous literature on focus in Basque

First, it is important to recall that in Basque, in order for a constituent to be interpreted as an instance of focus, it must bear the main stress of the sentence and it must precede the verbal complex with no element intervening between them. Considering the canonical, unmarked word order (S IO O V AUX), every and each constituent could in principle enter in the scope of a narrow focus, if the phrase is placed in the pre-verbal position, but crucially there can be only a single wide focus-reading, i.e. the one associated with the constituent in the pre-verbal position in canonical order. In other words, in order to have a constituent other than the object in focus position, some type of movement needs to take place. I will present here some important theoretical proposals accounting for this property.

The traditional approach is the 'left-peripheral' one, that is, the presence of a strong [+focus] feature that needs to be checked against the verb in the specifier of a functional projection, traditionally [Spec, CP] (Ortiz de Urbina 1989, 1999; Hualde and Ortiz de Urbina 2003; A. Elordieta 2001). This approach solved the ECP violations in the previous proposals by De Rijck (1969; 1978) that involved numerous lowering operations (A. Elordieta 2001). In De Rijck (1978), a constituent bears a [+focus] feature that drives movement to the left of the verbal complex which remains *in-situ*. Movement of the [+focus] bearing constituent is part also of Ortiz De Urbina's (1989) proposal. He observes that the distribution of *wh*-objects is the same as the one of moved focal material and that the two types of structures involve the same syntactic operations, i.e. *wh/focus*-fronting. A *wh/focus*-operator triggers in turn the movement of the inflected verbal material to C°, resulting in the V2 order discussed in section 1.1.4 (50):

50. a) [CP **Nor-k_{sub}** ekarri du_{v-aux} [IP t_{sub} liburu-a t_{v-aux}]]?

b) [CP **Jon-ek_{sub}** ekarri du_{v-aux} [IP t_{sub} liburu-a t_{v-aux}]]

'Who/Jon has brought the book'

Elordieta 2001, 119 [14]

This approach is parallel to the one adopted to describe V2-phenomena in Germanic languages by Den Besten (1983, in Elordieta 2001). Another common feature of the two syntactic objects

is that both *foci* and *wh*-elements can undergo cyclic movement to move from the embedded clause to the matrix one and take scope (if they are treated as operators) over the whole sentence:

51. [F Jonek]_i uste dut [t_i esan duela Mikelek [t_i idatzi Jon.ERG think.PRF aux..1SG.PRS say.PRF aux.3SG.PRS-com Mikel.ERG write.PRF duela t_i eskutitza]] aux.PRS-comp letter.ABS
 ‘It is Jon that I think Mikel has said has written the letter.’

Ortiz de Urbina 1999, p. 313

Therefore, Ortiz De Urbina (1999) claims that the two elements cannot move to the same position at the same time and thus, the strong [+focus] feature must be checked in a functional head in C. Both *foci* and *whs* move to this head in order to check their feature [+ focus] or [+ wh] in a Spec-Head configuration. Nevertheless, as pointed out by A. Elordieta (2001), despite the apparent symmetry of *wh* and focus in their syntactic behaviour, important discrepancies arise regarding, in particular, crossover effects, both weak (WCO, as in example 52) and strong (SCO, *idem* 53). While *wh*-structures exhibit these effects, they are not present for focus structures:³⁶

52. a) *Nor_i jo du bere_i ama-k t_i?
 Who hit has.AUX his mother.ERG
 ‘*Who_i has his_i mother hit?’
- b) Jon_i jo du bere_i ama-k t_i
 Jon hit has.AUX his mother.ERG
 “??His_i mother has hit JON_i”
53. a. *nor-i_i entzun du_v [IPJon-ek_i/pro_i [CPt_i emango diote-la sari-a] t_v]?
 who.DAT heard has Jon.ERG/pro.ERG [give AUX-C prize-det]
 ‘To whom_i did Jon_i/pro_i hear that they are going to concede a prize?’
- b. Bera-ri_i entzun du_v [IPJon-ek_i/pro_i [CPt_i emango diote-la sari-a] t_v]
 he.DAT heard has Jon.ERG/pro.ERG [give.FUT aux-C prize-det]
 ‘TO HIMi has said Joni/proi that they are going to concede a prize’
 ‘John thinks that they will concede a prize TO HIM’

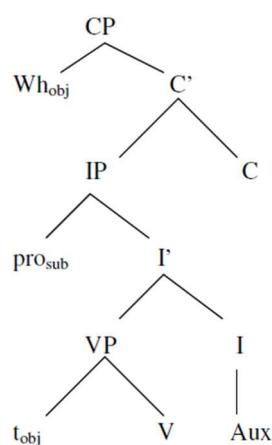
Elordieta 2001, 119-120 [15, 16]

³⁶ However, Irurtzun (2005) claims that the judgement in A. Elordieta (2001) are not shared by neither his informants nor him and suggests that further study is needed.

In (53a) *nor* ‘who’ (object) binds *bere* ‘his’ and the trace, violating the ‘Bijection Principle’ that states that an operator must bind only one variable. In (53a) *nori* ‘to whom’ is extracted from the embedded clause leaving a trace behind. Being a variable, this trace must be ‘A-Free’ (‘Condition C’ GB, Chomsky 1981) and this is not the case since the matrix subject binds the variable. The ungrammaticality of (52a) and (53a) is not present in (52b) and (53b) that, thus, cannot be analysed in the same way as *wh*-elements. Focus is claimed to represent an *exception to Condition-C* in Nediger (2015), hence it cannot be treated like *wh*-structures. Moreover, in the post-verbal focus constructions analysis provided by Ortiz De Urbina (2002) it has been showed that *wh*-objects do not share the same properties of *foci*, in that they cannot appear post-verbally. The fact that *foci* and *whs* exhibit a different behaviour is a well-known fact (e.g. Rizzi 1997) and even the incompatibility of *foci* and *whs* has been challenged, at least as far as embedded questions are concerned.³⁷

Laka & Uriagereka (1987) treat differently *wh*-phrases and focus claiming that only the former moves to [Spec, CP] and, moreover, they consider C to be head final, that is, left branching. They propose that the adjacency between focus and the inflected verbal complex is not the reflection of adjacency at structure level, but that it only occurs at PF, since V does not move to C. The adjacency *wh/foc>V* is the result of one or more instances of *pro* that intervene between them, blocking the possibility to insert lexical material. The resulting structure is the following (Elordieta 2001, p.121 [17]):

54.



There is no V-to-C movement, and no overt DP can intervene between the *wh*-element and [V+AUX]. Fukui and Speas (1987) propose that a functional category containing a

³⁷ Elena Callegari advocates for the need of a refinement for the generalization that fronted foci cannot be incompatible with whs in root questions. Elena Callegari (p.c.)

morphologically realized specifier is a barrier for extraction. Hence, the material that can intervenes between the *wh*-element and the verb, has to be either a *pro* (55a) or an adjunct (55b):³⁸

55. a) Nork pro_{IO} pro_{DO} eman dio umeari_{IO} liburuado?
 Who.ERG pro give.PRF aux.3SG.PRS child-det.DAT book-det.ABS
 'Who has given the book to the child?'
 b) nor honela etorri da?
 who.ABS thus come.PRF aux.3SG.PRS
 'Who has come this way?' Elordieta 2001, 122 [19]

In (56), *Jonek* 'Jon-ergative' in [Spec, IP] is a barrier for movement of *Nor* 'who-absolutive' to CP:

56. *Nor Jonek ikusi du?
 Who.ABS Jon.ERG see.PRF aux.3SG.PRS
 'Who has Jon seen?' Elordieta 2001, 122 [18]

In (56), since the movement is blocked by the DP in [Spec, IP] the result is the perfectly acceptable structure *Jonek nor ikusi du?* 'Who has seen Jon?' where the *wh* and *V* are adjacent. However, from a syntactic point of view this structure needs to be moved in order to be grammatical. In other words, *Jonek* cannot remain *in-situ* (i.e. [Spec, IP]) but it has to move to the *topic* position in C since, otherwise, it is not possible for the verbal complex to move to the right of the wh *nor* 'who-dative'. According to Laka and Uriagereka (1987, in Elordieta: 2001), overt lexical DPs are either left-dislocated or right-dislocated. The movement of the overt DP (in this case *Jon*) results in an apparent adjacency between the *wh*-element in [Spec, CP] and the verb and between focus (that does not move) and the verb. However, this hypothesis yields ungrammatical results according to A. Elordieta (2001, p.124), who, on the other hand, agrees that the landing site of the *wh* and the one of focus is not the same. She proposes a *V2 analysis for clause initial focalization patterns and an in-situ analysis for focus in unmarked contexts*. Before presenting Elordieta's account, it is useful to introduce the theory proposed by Albizu (1995) who claims that there are two strategies to create grammatical focus structure in Basque: one for 'narrow focus' interpretation and the other for 'wide focus'. Albizu (1995) claims that even if an intonational break (#) precedes the constituent under the narrow focus scope, which

³⁸ The examples are taken from Elordieta (2001) who adapts Laka (1985), who argues that (55b) is not accepted by several native speakers, including himself.

thus is, at least partially marked by prosody, the difference between the two is syntactical in nature, that is, they occupy two different positions:³⁹

57. *Wide (broad) focus:*

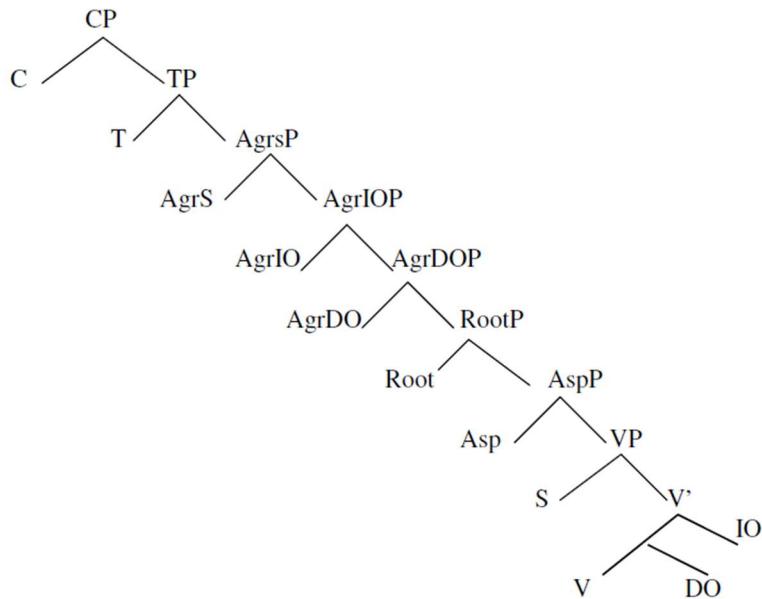
- a) Jonek Mireni kamiseta eman dio
Jon to Miren shirt-det.ABS give.PRF aux.3SG.PRS
'Jon has given a shirt to Miren'

Narrow focus:

- b) Jonek kamiseta # MIRENI eman dio
- c) MIRENI eman dio Jonek kamiseta
'Jon has given a shirt TO MIREN'

In (57a) the focus reading could involve in principle [ABS] or [ABS + DAT] or [ERG + DAT + ABS], while in (57b) only [DAT] can be focalized, regardless of the general word order. According to Albizu (1995), in (57b-c) the focus is in [Spec, CP] while the focus in (57a) occupies an L-related position, either the specifier of RootP or of AgrP in the tree below. The claim is that focus is a feature assigned by the verb, checked under a *Spec-Head* relation outside the VP. The clause structure she assumes is an SVO one (similar to the ones proposed by G. Elordieta 1997 and Haddican 2006 introduced in chapter 1):

58.



³⁹ The presence of an intonational break before the element in focus is crucial for the interpretation of the post-verbal focus structures as instances of contrastive focalizations, according to Ortiz De Urbina (2002). I will discuss this issue below.

The hypothesis is that the verb raises to Root to lexicalize the auxiliary generated there, and that its arguments check their Case in one of the [Spec, Agr] positions available, raising there before or after the Spell-Out. The arguments move, thus, to check the [+focus] feature of the verb and not to check Case features. According to A. Elordieta this approach entails two (partially) incorrect predictions: *(i) that every Basque sentence has one or more constituents interpreted as focus, even in unmarked context, and (ii) that arguments should not raise unless this movement is triggered to be interpreted as new information* (Elordieta 2001, p.126). The focus reading projection is active only in sentences realizing the canonical order (S-IO-O-V). The main shortcoming of this account, according to A. Elordieta (2001), is that it does not explain the movement of non-focal elements to the left-periphery. Moreover, it does not account for the assignment of the nuclear stress to the pre-verbal constituent (this is a direct consequence of the mechanism of NSR introduced in the previous section that cannot work if the directionality of the recursion changes). She thus proposes an alternative analysis of focus that, similarly to Albizu's (1995) one, identifies two mechanisms that co-occur in order to express information focus. Crucially, in A. Elordieta's (2001) account they *must* co-occur: (i) the focalized constituent must be left-adjacent to the verbal complex and (ii) it must bear sentence stress:⁴⁰

59. a) JONEK irakurri dio amari ipuina (S V-Aux IO O)
 Jon.ERG read aux.3SG mother-DAT story-det.ABS
 'JON has read mother the story'

- b) Amari ipuina JONEK irakurri dio (IO O S V-Aux)
 mother.DAT story-det Jon.ERG read.PRF aux.3SG

- c) Amari JONEK irakurri dio ipuina (IO S V-Aux O)
 mother.DAT Jon.ERG read.PRF aux.3SG story-det.ABS

Elordieta, 2001 p.129 [26]

Recalling that the wide focus reading can include three or more constituents of any size, and that the preverbal element will receive the main stress of the clause, changing the surface order leads to a narrow focus interpretation. In the examples in (59) only the preverbal (and stressed) constituent, i.e. the subject, can receive a focal interpretation (narrow focus reading). Following these considerations, A. Elordieta (2001) claims that there are two possible operations to produce these two interpretations namely:

⁴⁰ In the examples adapted from A. Elordieta (2001) I marked the focus constituent by means of capital letters and I indicated the sentence stress by means of an accent (to identify the position I referred to Hualde 1991).

- (i) Wide focus *in situ* in sentences that preserves the canonical order with stress assigned by means of the Nuclear Stress Rule algorithm (Cinque 1993, Zubizarreta 1998);
- (ii) Narrow Focus reading obtained by syntactic marked structures that either involve ‘scrambling’ of non-focal material or by assuming that focal material is generated in a left-dislocated position, triggering V-to-C movement.

The NSR algorithm (Cinque 1993) described in the previous section, correctly predicts the assignment of the main stress of the sentence on the constituent left-adjacent to the verb, usually the object, since it is the most embedded element of the sentence. Moreover, there are some verbs that are formed by the light verb *egin* ‘to do’ and by a noun that bears the main sentence stress (60):

60. Amaaren umeak negar egin du
 Amaia.GEN baby-det.ERG cry.INF do.PRF aux.3SG.PRS
 ‘Amaia’s baby cried’

This possibility is also available for verbs which do not have, in principle, this [*egin+noun*] form where *egin* ‘to do’ can be added in order to focalize the verb as in (61), which is an instance of corrective focus:

61. a) Zer gertatu zen?
 What happen.PRF aux.3SG.PST
 ‘What have you done?’
- b) Erosi egin dut
 Buy.PRF do.PRF aux.1SG.PRS
 ‘I have bought it (not rent)’

To summarize, the NSR correctly predicts the stress pattern responsible for the wide-focus reading that involves canonically ordered sentences. The pre-verbal element receives the main sentence stress since, assuming that V moves to Aux, the VP internal argument in [Spec, Asp] is the most embedded constituent, and the focus reading can be extended to the whole structure. In order to identify the portion of the sentence to be considered as new information, according to A. Elordieta (2001), we need to rely on context (e.g. considering what is the appropriate answer to a *wh*-question other than ‘what happened?’). These predictions are confirmed in Zubizarreta (1998) who argues that *the default stress rule identifies a set of*

potential (neutral) foci, not just a single focus, leaving the determination of the actual focus to the context in which the sentence is uttered (Elordieta, 2001 p.132).

2.4.3 Narrow focus reading

In order to focalize a single element in a structure, i.e., to have a narrow-focus reading, several languages (e.g. Romance languages and English), use a ‘stress-shifting’ strategy, that is, the position of sentence stress changes and the constituent that bears the main stress is interpreted as focus. However, this possibility does not hold in Basque, which adopts different strategies that involve syntactic operations to maintain the necessary adjacency of the focalized constituent and the verb, as well as the standard position of the stress, in preverbal position. The following examples show the possible surface structure with a narrow focus interpretation:

62. a) *Mikelek **ume-ei** goxoki batzuk ekarri dizkie S IO O VAux
Mikel.ERG children.PL.DAT sweet some bring.PRT aux.PRS
'Mikel has brought some sweets *to the children*'
- b) Mikelek goxoki batzuki **umeeii** t_i ekarri dizkie S O **IO** VAux
- c) **Umeei** ekarri dizkie Mikelek goxoki batzuk **IO** VAux S O

Elordieta 2001, 139 [47]

In (62a) the target focus interpretation, that is, the intended focalization on *umeei* ‘to the children’ is ungrammatical since *umeei* does not immediately precede the participle, being in its canonical position, before the direct object. (62b) and (62c) involve two syntactic operations, namely ‘scrambling’ and ‘focus fronting’ respectively. The former is an instance of focus *in-situ* while the latter requires syntactic movement. The two strategies lead to an interpretation of ‘narrow focus’ that is, only a single constituent can receive the *focus* reading that cannot take scope over more than one constituent. Via a ‘scramble’ movement (Ross, 1967) that switches the position of two constituents, an element meets the two conditions of X>V adjacency and of main stress assignment, triggering the focal interpretation. A. Elordieta (2001, p. 139) claims that this operation is responsible for the modification of the *focus options determined by the main stress*, as is the case of the example in (68):⁴¹

⁴¹ For an overview of this operation, see Elena Anagnostopoulou and Danny Fox, course materials for 24.952 Advanced Syntax, Spring 2007. MIT OpenCourseWare (<http://ocw.mit.edu/>), Massachusetts Institute of Technology. I will return on the operation ‘scrambling’ in chapter 3.

63. a) Mikelek goxoki batzuk; umeei t_i ekarri dizkie
 Mikel.ERG sweet some children.DAT bring.PRT aux.3SG.PRS
 'Mikel has brought some sweets *to the children*'

b) Focus set: [TP, VP, IO]

Elordieta 2001, 139 [47b]

IO bears the main stress, and thus, the focus reading could in principle take over TP and VP as well, but it would violate the *interface economy*, formulated as follows by Neeleman and Reinhart (1998, 70): *Economy entails that stress strengthening applies only to derive foci not already in the focus set.* According to A. Elordieta, this is precisely what drives to a narrow focus interpretation where a scrambling operation takes place: it would be *un-economical* to produce a marked structure in order to convey a wide focus reading, since it can be obtained by means of the unmarked structure. A. Elordieta (2001) follows the proposal by Zubizarreta (1998) that points out that post-verbal adjuncts and adverbials can convey new information too. In order to analyse some problematic stress phenomena involving adjuncts in Romance and Germanic languages, she looks at prosodic prominence as a matter of linear order, rather than structural constituency: the constituent that bears main stress is in the rightmost position, before or after the verb.⁴² This depends on the recursion pattern of the language, i.e. in Basque, an OV language, the stress falls on the rightmost constituent to the left of the verb. According to A. Elordieta (2001, p.141) *given these assumptions, the rule of main stress assignment only applies at the left-hand side of the verb. This also accounts for the 'adjacency requirement' of Basque focalized constituents.* Needlessly to say, this hypothesis is problematic for the accounts that, following Kayne (1994), assume that there is no directionality parameter, that is, every language has an underlying order SVO (For Basque: G. Elordieta 1997, Haddican 2006 et al.). Arregi (2003) proposes another analysis in which focus remains *in-situ* while there are a series of 'focus evacuation' movements that prevent the main stress, that is, the focus reading, from being assigned to the wrong constituent. He proposes a modified version of Cinque's (1993) NSR in which the stress is assigned to a vP-internal constituent, otherwise the stress would fall on the verb itself. The other constituents are either right-dislocated or left-dislocated, in order to get the necessary adjacency focus-V. Following Buring's (1997) theory of topic semantics, she assumes that the sentence in (64) is schematically represented as *x saw y* where *x* and *y* are two sets of possible topics. According to Arregi (2003) the left-dislocated element is marked as *Topic* and there may be more than a single *y* which has been seen by *x*. If the unfocalized

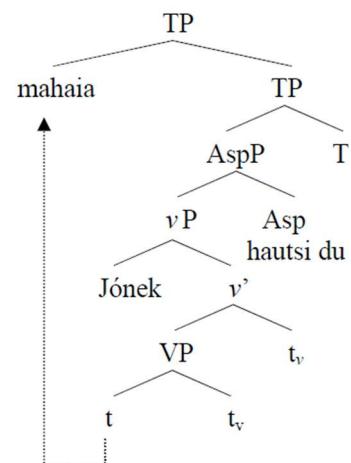
⁴² According to Elordieta (2001) this is easily accounted by the fact that they can be insert at any level of the sentence structure.

constituent is right-dislocated, it is marked as given, that is, it is previously mentioned in the discourse.

- | | |
|--|-------------------------------|
| 64. a) Jon _i [F Mirenek] t _i ikusi rau.
John.ABS Mary.ERG see.PRT aux.PRS
‘[F Mary] saw John.’ | [Left-dislocation, Topic] |
| b) [F Mirenek] t _i ikusi rau Jon _i .
Mary.ERG see.PRT aux.PRS John.ABS
‘[F Mary] saw John.’ | [Right dislocation, G-marked] |
| | Arregi 2003 [142] |

Arregi (2003) rejects an analysis involving focus-movement, claiming that the focus-V adjacency is stress-driven -- i.e. prosodic in nature. However, differently from A. Elordieta (2001), he does not hypothesize an operator to account for ‘sentence initial *focus*’, claiming that the right-dislocated material is adjoined to TP. The same operation is claimed to be effective for long distance dependencies as well. However, moving the embedded clause to the right of TP would produce an ungrammatical post-verbal position of *focus* and *whs*. To avoid this outcome, Arregi claims that these elements are adjoined to the matrix vP for prosodic reasons, before rightward movement. In sum, Arregi (2003) claims that the adjacency FOC > [V+AUX] is accidental, i.e. a direct consequence of the need for the intended focus constituent to receive main phrasal stress by means of the NSR. Word order is then a by-product of the ‘stress avoiding movements’ of the non-focused elements. These movements are either left-dislocations or right-dislocations:

65. mahaia Jonek hautsi du
table-det.ABS Jon.ERG breack.PRF aux.3SG.PRS
‘Jon broke the table’



In order for the main sentence stress to fall on the subject *Jonek*, the object *mahaia* ‘table’ moves under TP in line with the movement in (65), every non-focalized element undergoes either left or right dislocation, to avoid the focus position.⁴³

2.4.4 Left peripheral foci

As I pointed out at the beginning of the previous section, a narrow focus interpretation is active also in (57c) repeated here as (66), that is, a structure in which the focus constituent appears at the left-most position of the sentence:

66. MIRENI eman dio Jonek kamiseta
Miren.DAT give.PRT aux.3SG.PRF Jon.ERG shirt-det.ABS
‘TO MIREN Jon has given the shirt!’

To account for this type of structures, A. Elordieta (2001) proposes that the focus constituent is base-generated in a left-dislocated position, the verbal complex moves to C and the required adjacency is respected. Ortiz de Urbina (1989; 1999) considers this type of *foci* as operators that identify an *identification (exhaustive) focus* with an overt syntactic realization similar to the well-known case of Hungarian (Brody 1990). Sainz-Maza Lecanda (2017) claims that focus movement is triggered by exhaustivity, i.e. not *in-situ* foci are exhaustive. As I pointed out in 2.2.1, I consider exhaustivity as a general property that *focus* can exhibit, but that I fail to recognise as peculiar of ‘left-peripheric’ focus in Basque, given that according to my informants, the sentence in (67) does not preclude the possibility that ‘someone else other than Jon saw Miren’:

67. Jonek ikusi du Miren (, eta Aitorrek bezala)
Jon.ERG see.PRT aux.3SG.PRF Miren.ABS
‘Jon saw Miren (and also Aitor)’

Taking into account the similar distribution they have, Ortiz de Urbina (1989 and subsequent works) proposes that focus movement and *wh* movement involve the same operation, that is, a feature-driven *focus/wh-fronting*:

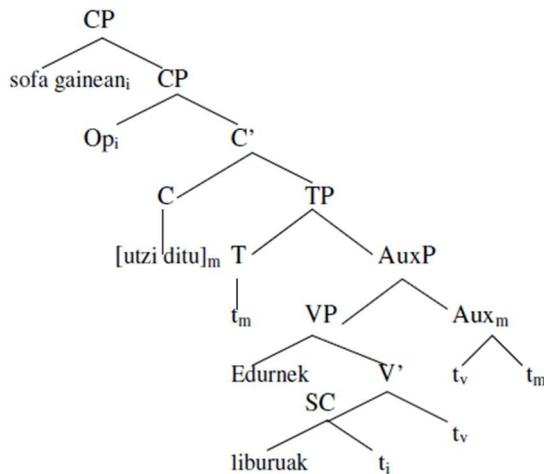
68. [CP wh/focus_i [V-Aux]_v [IP XP t_i t_v]]

⁴³ This hypothesis is strictly related to a view of Basque as a head-final language, an issue still very controversial (see Hualde and Ortiz de Urbina 2003).

(68) has become the standard view of *wh* structures in Basque and, following Rizzi's (1991) *wh-criterion*, Ortiz de Urbina (1994) proposes that operators must establish a *Spec-Head* relation with a head marked for the relevant feature, e.g. [+focus] checked off in FocP or in another position in the left-periphery of the clause. However, as I pointed out earlier *wh* and focus constructions exhibit an asymmetrical behaviour (in particular regarding WCO and SCO effects) and this leads A. Elordieta (2001, p.145) to argue that *the apparent fronted focus phrase is base-generated in a left-dislocated position and [...] it lacks quantificational force*. Focus constructions exhibit island and reconstruction effects and in order to account for their presence, which is a diagnostic of movement, she proposes the presence of a null operator co-indexed with the focus. This operator occupies the same position of *wh* objects that cannot, indeed, co-occur with focus constructions.⁴⁴

The structure proposed by A. Elordieta (2001) to account for the sentence *sofa gainean utzi ditu Edurnek liburuak* 'Edurne left the books ON THE SOFA', which contains an element in a left-peripheral position, is the following (69):

69.



Note that the left-dislocated position in this account is treated as the host of an informational focus, that is, it simply provides new information without entailing any other feature. In fact, according to A. Elordieta (2001), the notion of contrastivity does not go beyond the presence/absence of a set of contrastive elements and does not exhibit any effect in the overt syntax of Basque. This view has been challenged both by data analysis (Sainz-Maza Lecanda 2017) and theoretical accounts (Etxepare, 1998; Ortiz De Urbina, 2003; Irurtzun 2016 among others) and I will claim that contrastivity is not necessarily entailed by a leftward position of

⁴⁴ See note 26.

focus, but that a position on the left-side (either in CP or in IP) is in fact the preferred position to *foci* other than the informational one.

To sum up, the two main approaches that have been proposed to account for focus constructions in Basque are a ‘left peripheral approach’ and a ‘NSR approach’. I claim that the left-peripheral approach is indeed on the right track for several technical reasons and for some theoretical weaknesses observed in Irurtzun (2005) exhibited by Arregi’s (2003) proposal that I list below.

2.4.5 some problem with NSR analysis

If the [+focus] feature bearing constituent is in an embedded CP, a long-distance movement to the matrix CP can take place, in line with the same movement that can involve *wh*-constituents:

70. [JON]_F pentsatzen dut [CP Mirenek t_i ikusi zuela]
 Jon.ABS think.PRF aux.1SG Miren.ERG see.PRF aux.3SG-comp
 ‘I think Miren saw [Jon]_F’ Irurtzun (2005), [23]

Arregi’s (2003) analysis predicts that the target of the focalization is adjoined to the matrix vP in order to receive sentence stress and then the embedded CP is right dislocated. However, the same derivation cannot explain the constructions in (71):

71. a) [JON]_F pentsatzen dut [CP t_i ikusi zuela Mirenek]
 Jon.ABS think.PRF aux.1SG see.PRF aux.3SG-comp Miren.ERG
 ‘I think Miren saw [Jon]_F’
 b. Pentsatzen dut [CP [JON]_F ikusi zuela Mirenek]
 think.PRF aux.1SG Jon.ABS see.PRF aux.3SG-comp Miren.ERG
 ‘I think Miren saw [Jon]_F’ Irurtzun (2005), [24a,b]

Following Arregi (2003), unless an untriggered movement takes place, *Jon* cannot be in the most embedded position neither in (71a) nor in (71b). Moreover, if following Arregi (2003), the adjacency between focus and verbal complex were accidental, it would be unlikely to have the same adjacency in both clauses. A similar behaviour is observable when taking into account clausal pied-piping phenomena (72), in which an element bearing a [+focus] or a [+wh] feature, moves to the [Spec, CP] position of a subordinate clause. According to Arregi (2003) the same movement that takes place in (70) occurs here, but in the case of (72) the whole clause is dragged in first position:

72. [[JON]F etorriko dela bihar] Miren esan diot
 Jon.ABS come.FUT aux.3SG-comp tomorrow Miren.DAT say.PRF aux.1SG.PRS
 ‘I told Mary that [Jon]F will come tomorrow’ Irurtzun (2005), [25]

Irurtzun (2005) points out that, similarly to the long-distance movement described above, Arregi’s account makes the wrong predictions for the optimal (that is, preferred) structure – according to his judgment and to the one in Laka and Uriagereka (1987) and Ortiz de Urbina (1999) – in (73):

73. [[JON]F etorriko dela bihar] esan diot Miren.
 Jon come AUX-C^o tomorrow said AUX Miren-to
 ‘I told Mary that [Jon]F will come tomorrow’ Irurtzun (2005), [26]

In the eastern varieties of Basque, the cleft-like structure described in the previous chapter can mark focus, by the right adjacency of the auxiliary to the focalized constituent. Hence, it seems unlikely that the pre-verbal focus position is purely accidental:⁴⁵

74. Jonek du Miren ikusi
 Jon.ERG aux.3SG Miren.ABS see.PRF
 ‘it was Jon that saw Miren’

A further problem with Arregi’s analysis is related to (75) since, apparently, it is the adjacency with an inflected element to be responsible for the focus reading. Consequently, in non-finite clauses the adjacency is indeed not respected, while the sentence remains grammatical:

75. a) [Kepak ardoa edate-a] gauza arraroa da.
 Kepa wine drink-INF thing strange BE
 ‘It is a strange thing for Kepa to drink wine’
 b) Ez!, [[Julenek]F ardoa edate-a] da gauza arraroa!
 No Julen wine drink-INF BE thing strange
 ‘No!, It is a strange thing for [Julen]F to drink!’ Irurtzun (2005), [29 a,b]

(75b) is a corrective focus and the adjacency with the verb is not respected, according to Irurtzun (2005, p.15), this suggests that *the focus-verb adjacency should be analysed as masking a true*

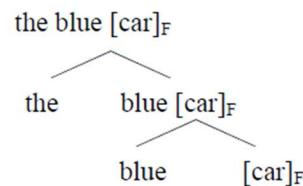
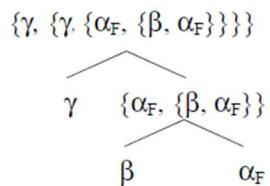
⁴⁵ The sentence in (74), as I pointed out in chapter 1, is not exclusively present in eastern dialectal varieties, but it is used in poetic language. It is indeed perfectly acceptable for the speaker of Euskara Batua I interviewed.

focus-tense relation which are best analysed at PF level using a derivational approach in which *merge* is the main tool to derive focus structures. The derivation is articulated as follows:

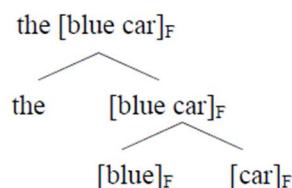
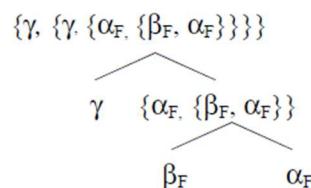
When two elements (*a* and *b*) which both bear a [+focus] feature undergo merge, the new object will be, in ‘Bare Phrase Structure’ terms, a set-theoretic object containing only [+focus] marked items (Irurtzun 2005). When the set of [+focus] marked items is merged with an element that does not bear the same feature, the new set will be headed by an element featured [+focus]. Thus, *we keep a direct mapping between syntax and semantics and build semantic interpretation in a strict compositional way, and observing one of the core minimalist assumptions: the ‘Inclusiveness Condition’ [...] thus, depending on which lexical items enter into the derivation bearing the [+F] feature, we will have different F-Structure possibilities within a DP* (Irurtzun 2005, p.6).⁴⁶

The possible derivations are represented in (76):

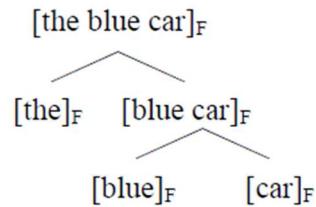
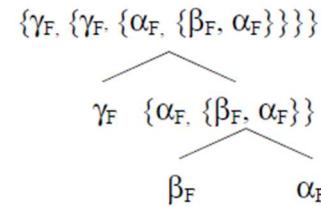
76. a)



b)



c)

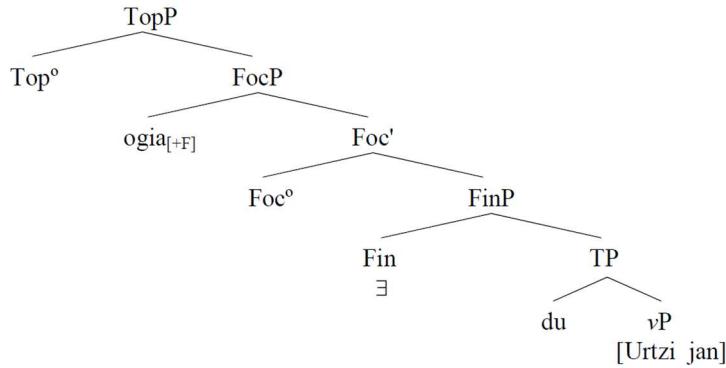


This system of derivation predicts the size and the semantic import of focus via a simple syntactic operation. At the PF the NSR will assign the main stress to the *most embedded element within the focus domain* (Irurtzun 2005, p.7). Herburger (2000), in order to provide a semantic account for a focus phrase, proposes a theory of focus interpretation based on the ‘event

⁴⁶ IC=“Any structure formed by the computation (in particular, *p* and *l*) is constituted of elements already present in the lexical items selected for *N*; no new objects are added in the course of computation apart from rearrangements of lexical properties (Chomsky, 1995 p.228)

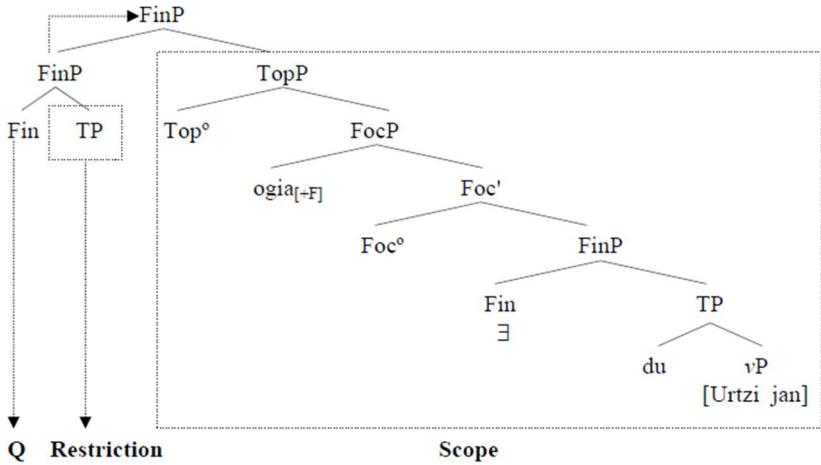
semantics approach' (Davidson 1967; Schein 1993). *The basic idea of the proposal is to take a proposition to be a description of an event, verbal arguments and adjuncts to be predicates of the event and the focus to fall in the scope of a restricted existential quantification over the event* (Irurtzun 2005, p.17). The proposal for Basque is that the existential quantifier's position is in the layered CP proposed by Rizzi (1997), in particular in FinP. FocP is merged and the [+focus] marked element moves to its specifier to check its feature.

77. Ogia du, Urtzi jan 'it was bread, that Urtzi ate'



Following Hornstein and Uriagereka (2002, in Irurtzun: 2016), the existential quantifier in FinP (that at this stage lacks scope), undergoes an operation of 'Quantifier Raising' to [Spec, TopP] then, it re-projects *gaining the "external argument" in its extended local domain* (Irurtzun 2016, p.21). The result is the structure in (78) in which FinP/ \exists P dominates both a quantifier (\exists), its restriction (TP) and its scope (TopP). This proposal makes the right predictions since, according to Büring (2016) an adequate hypothesis should provide a focus-domain as big as possible, i.e. maximize the background, while the *foci* themselves should be as small as possible:

78. Ogia du urtzi jan 'it was bread, that Utzi ate'



However, if a split CP hypothesis is assumed, two crucial problems arise. According to Rizzi (1997) the articulation of the C-layer consists also in a TopP position below FocP, hence, in order for the adjacency to be respected, it should be assumed that said position is never active in Basque or at least is present and it must contain the *un-focalised* material that intervenes between the focus and the inflected verb in (75b). However, semantically speaking, the adverbs that can intervene there are not instances of *topic*. This structural problem could be surpassed by taking into account the claims in Benincà and Poletto (2004) in which it is argued that the position below FocP are not instances of Topic. In fact, from a cartographic perspective, each functional projection in CP has a specific role, i.e. as far as Topic and Focus are concerned, each projection is related to a specific pragmatic interpretation. Furthermore, elements that appear below FocP behave as operators -- that is, like *foci* – and they thus propose a configuration of the CP as divided into a higher Topic field that host non-operator elements and a lower Focus field hosting operator-elements.⁴⁷

Nevertheless, Irurtzun's (2005) hypothesis for a central role of inflection can be challenged by the fact that among the strategies to focalize the lexical verb that Basque can exhibit, the possibility to single out the participle by putting it in a fronted position is not available (if not using an extremely marked prosody) and if any element is added, said element will receive a focus interpretation. It is indeed possible to move the participle to FocP only by adding the light verb *egin* ‘to do’ between the focus target and the auxiliary (arguably in Foc°, see ex.60). To some extent, the participle undergoes a process of nominalization and it can have the same behaviour as the other focalized constituents, that is, it is interpreted as such for its adjacency

⁴⁷ The observations in Benincà and Poletto (2004) should be taken into account when developing an hypothesis for the structure of the vP periphery (see chapter 3). I cannot, however, address the issue in the present dissertation.

to the participle *egin* ‘to do’. Nevertheless, the role of inflection in focus-marking strategies appears to be crucial, considering the examples in (74) and (75).

2.4.6 Post-verbal focus

Another case in which the adjacency focus – verb is not respected has been identified by Ortiz de Urbina (2002). There are constructions which can be uttered in particular contexts in which the focalized constituent is not in a pre-verbal position, but it follows the inflected element. These constructions have been first observed by Villasante (1980, p.259) who notices that: *Estos complementos puestos detrás del verbo se pronuncian con una inflexión particular de la voz que denota la voluntad de resaltarlos*. According to A. Elordieta (2001) and Ortiz De Urbina (2002) this ‘particular inflection’ can be described as an intonational or accentual property of the element, which is preceded by a intonational break or a pause as the following example shows:

This sentence is an instance of *focus of correction* (Ortiz De Urbina 2002) which has a particular intonation contour that can be described as *pitch* contour. In the variety of Lekeitio Basque that has been studied from the phonological point of view by Hualde, Elordieta and Elordieta (1994), it is possible to identify a pitch accent on the focalized constituent. Crucially, this same accent (marked by a circumflex) is present in post-verbal *focus* structures:⁴⁸

80. *da gobernuuk emoten dotzes berroei millô*
and government. ERG give. IMPF AUX forty million
'... and the government gives them forty million' Hualde and al. 1994, [218]

Ortiz de Urbina (2002) points out that even if the preference is to have no more than one constituent on the right of the verb in this type of structures, it seems that in order to receive a focus interpretation, the post-verbal argument must follow the intonational break, otherwise, its

⁴⁸ This is a feature which is present in every variety of Basque. However, Lekeitio Basque exhibit a particularly marked pitch accent which is recognizable more easily than in the other varieties.

grammaticality status is dubious. Moreover, they need to be in final or, to be more precise, right-peripheral position:

81. a) Jonek irakurri du periodikoa ETXEAN.
 Jon.ERG read.PRF aux.3SG.PRS newspaper-det home.at
 'Jon read the newspaper at home.'
- b) ??Jonek irakurri du ETXEAN periodikoa. Ortiz De Urbina 2002, p.513

In principle, final *foci* can be both corrective and informational, probably depending on the dialect or on the register of the utterance. For the time being, and as far as standard Basque is concerned, I will treat these as instances of one type of *marked foci* that is, *foci* other than the unmarked presentational one, following Ortiz De Urbina (2002).⁴⁹

These structures share some phonological features with the pre-verbal *foci* and they exhibit some affinities in their scopal properties. In particular, in the negative structures in (82), the post-verbal *foci* have scope over the negation despite the fact that they follow the element in their scope:

82. a) Ez da etorri # HORREGATIK.
 neg aux.3SG come.PRF because.of.that
 'He has not come because of that.' (= that, and not another, is the reason why he has not arrived)
- b) Ez diot ekarri ardoa # ANDONIRI.
 neg aux.1SG bring.PRF wine-det Andoni.DAT
 'I did not bring the wine to Andoni.' (= It is to Andoni, that I did not bring the wine)
- Ortiz De Urbina 2002, 515 [7]

The elements in post-verbal position are not interpreted in the scope of the negation. This is shown in (83), if we assume that, when in the scope of a negation, a constituent can be contrasted using a positive tag and if outside that scope, it can be contrasted by a negative tag:

83. a) Ez diot ekarri ardoa Andoniri, (*ez Mireni/ Mireni baizik)
 neg aux.1SG bring wine-det Andoni.DAT neg Miren.DAT/ Miren.DAT but
 'I did not bring wine to Andoni, *not/but to Miren.'

⁴⁹ Ortiz De Urbina (2003) points out that in the corpus collected by Hualde et al. (1994) all the occurrences of post-verbal focus are informational. However, it has been claimed in A. Elordieta (2001) that in order to have the contrastive reading, final-focus structures, needs a formal and controlled register out of the scope of Hualde et al. (1994). The corrective reading is, moreover, easier to elicit in a grammaticality test.

- b) Ez diot ekarri ardoa # ANDONIRI, (ez Mireni/ ?? Mireni baizik).
 neg aux.1SG bring wine-det Andoni.DAT neg Miren.DAT Miren.DAT but
 'I did not bring the wine to Andoni, not/??but to Miren.'

Ortiz De Urbina 2002, 513 [8], adapted

The two characteristics indicated above as diagnostics of contrastive focus reading (intonational break and particular intonation pattern) are both present in (83a, b) and the scopal relations in the example prove that *Andoniri* ‘Andoni-dative’ cannot be interpreted as a negative focus. According to Ortiz De Urbina (2002), these *foci* not only are similar to the left-peripheral ones, but they are indeed left peripheral. In other words, the derivation is the same of the left-dislocated information focus in which the constituent XP checks its [+focus] feature in a *Spec-Head* relation in line with Rizzi’s (1991) proposal. The other elements of the sentence (YP, which are pragmatically backgrounded) appear in [Spec, TopP] in the split CP proposed by Rizzi (1997).⁵⁰

Ortiz De Urbina (2002) claims that not every possible interpretation of a pre-verbal focus can have a correspondent final-focus. In particular, the latter seems to not cover the range of contrastive interpretation available for the pre-verbal position since *it may be 'specialized' for corrections of previous utterances* (Ortiz De Urbina 2002, 12). A Focus ‘specialized’ in that way appears to me to be a ‘focus of correction’ in the terms of Bianchi, Bocci and Cruschina (2015) which differs from the ‘contrastive focus’ in a number of crucial properties – both syntactic and semantic -- and it is considered as a subtype of corrective focus. I will deal with focus typology in Basque in the next chapter.

Conclusions

After having introduced some of the major properties of focus-structures, I have stressed the importance of focus typology issues in the overall analysis of the topic. Then, I have reviewed some proposals which account for focus phenomena in Basque. In this language, two strategies to mark focus need to be active at once: a phonological one, namely the presence of the main sentence stress on the focalized constituent; and a syntactic one, i.e. the focus-elements must be adjacent either to the verb (Elordieta 2001; Arregi 2003) or to the inflected element (Irurtzun 2005). The former is challenged by several claims in the general prosodic theory of focus and

⁵⁰ A (simplified) representation of the left-periphery of this type of Basque clause is the following: [TopP YP [Top°]
 [FocP XP [Foc°]FinP[Fin°]].

by the wrong predictions it makes for Basque. The latter entails some issues that remain unsolved, in particular regarding the possible influence of focus typology on Basque clause structure.

In the next chapter, I review some of the studies that focus on the evidence for the existence of a ‘low-periphery’ of the clause, which could solve a number of linearization issues in a variety of languages. I then present data to analyse focus typology in Basque, allowing the possibility for such a layer to exist.

3. DERIVING FOCUS STRUCTURE

In the previous chapter, I have presented some of the features of Basque focus-structures which, according to the different proposals I discussed, do not allow a single focus position, or the main sentence stress to identify focus. I will follow Albizu (1995) and A. Elordieta (2001) as far as information focus is concerned, claiming that, in order to produce a focus structure in Basque, two conditions need to co-occur: the focalized constituent must bear main sentence stress and it must appear in pre-verbal position. As long as these two requirements are met, the complex [Foc + V] can surface in any position in the sentence and the interpretation will virtually remain unchanged:⁵¹

1. a) Nor ikusi du Jonek?
Who.ABS see.PRF aux.3SG.PRS Jon.ERG
'Who has Jon seen?'
- b) Miren **ikusi du** Jonek
Miren.ABS see.PRF aux.3SG.PRS Jon.ERG
'it is MIREN, that Jon has seen'
- c) Jonek Miren **ikusi du**
- d) *Jonek ikusi du Miren

However, it is not clear whether the fact that the cluster formed by the focus and the verbal complex can appear in different positions in the sentence affects the information structure of the sentence.

Two different positions for focus seem to be available when looking at Basque linear order: a sentence-final position and a leftward position. Nevertheless, any number of phrases could in principle precede or follow the focalized constituent and it is not always the case that the unfocused constituents are also G-marked. Consequently, I will argue that the distribution of *foci* in Basque is related to the semantic values conveyed by that particular construction.

Indeed, having (at least) two positions available for focus with no semantic differences, would violate the principles underlying the economy of derivation and representation. According to the 'Minimalist Program' (Chomsky, 1995 and subsequent works) the number of syntactic operations required in a derivation must be as little as possible and the structure of a sentence must be as simple as possible. Following the *Late Resort* principle, an operation *OP* might be

⁵¹ I have marked in bold the verbal complex and I have underlined the focalized item.

applied if the derivation will otherwise lead to ungrammatical results. In other words, it does not seem justifiable to have two focus positions that convey the exact same meaning.

Following the operations proposed by A. Elordieta (2001) and Arregi (2003), summarized in chapter 2, the adjacency of focus and verbal complex *in-situ* is the result either of a scrambling operation, a fronting one, or right dislocation of the preverbal elements in order to avoid sentence stress and, hence, the focus reading. However, the derivation in example (1b), both analysed as a right dislocation or as leftward movement of the verbal complex, would be optional, considering that (1c) is a perfectly acceptable answer to (1a), and it consequently results in a violation of the Last Resort principle.

According to A. Elordieta (2001), example (1b) is an instance of left-peripherical focus, where [V+AUX] moves to FocP in the left periphery to satisfy the adjacency requirement with the object *Miren* which is base-generated there, while the subject remains *in-situ*. On the other hand (1c) is an instance of focus *in situ* that is, the focalized element occupies the preverbal position and the verbal complex is in its canonical sentence-final position.

Following the observations made in chapter 1 regarding word order in Basque we can consider (2a) to be the basic, unmarked order to describe the event *Jon that has seen Miren at the park today*, and the other examples (2n) as the appropriate reply to the questions in brackets:⁵²

2. a) Gaur Jonek Miren parkean ikusi du
Today Jon.ERG Miren.ABS in-the-park see.PRF aux.3SG.PRS
'Today Jon has seen Miren in the park'
- b) [who has seen Miren at the park today?]
Gaur Miren parkean **Jonek ikusi du**
- c) [who has seen Jon at the park today?]
Gaur Jonek parkean **Miren ikusi du**
- d) [when has Jon seen Miren at the park?]
Jonek Miren parkean **gaur ikusi du**
- e) [where has Jon seen Miren today?]
Gaur Jonek Miren **parkean ikusi du**

According to A. Elordieta (2001), every WO in (2) is the result of scrambling, an operation available to those languages that exhibit a rich morphological system that allows to convey the intended meaning regardless of the linear order of the constituents.

⁵² All the sentences in (2) are grammatical in an out-of-the-blue context and virtually unmarked, however, the preferred word order when no background information is present is (2a), see section 1.1. The locative and temporal PPs have a distribution less fixed than other constituents in unmarked contexts.

Two types of scrambling can be identified: short distance (clause bounded) scrambling (e.g. German, 3b) and long distant scrambling (e.g. Japanese, 4b):

3. a) dass Hans nicht die Bücher kauft
that Hans not the books buys
 - b) dass Hans die Bücher nicht kauft
4. a) Mary-ga sono hon-o yonda (koto)
Mary.NOM that book.ACC read (fact)
'Mary read that book'
 - b) sono hon-o Mary-ga yonda (koto)
that book.ACC Mary.NOM read (fact)
'Mary read that book'

As far as Basque is concerned, the same informational structure of the sentences in (2) can be conveyed by the structures in (5). In the latter, conversely, some kind of movement of one of the elements involved in the focussing operation – i.e. verbal complex or focalized constituent – is required, given that the verbal complex does not appear in the canonical sentence final position:

5. a) [who has seen Miren at the park today?]
Gaur Jonek **ikusi du** Miren parkean
Today Jon.ERG see.PRF aux.3SG.PRS Miren.ABS park.LOC
- b) [who has seen Jon at the park today?]
Gaur Miren **ikusi du** Jonek parkean
- c) [when has Jon seen Miren at the park?]
Jonek gaur **ikusi du** Miren parkean
- d) [where has Jon seen Miren today ?]
Gaur Jonek parkean **ikusi du** Miren

As I pointed out at the beginning of the previous chapter, following Dal Farra (2018), focus needs a more fine-grained definition to account for the different semantic values that the different types of focus can bear. I will argue that the claims in A. Elordieta (2001) and Arregi (2003), according to which there is no interpretative difference regardless of the distribution of *foci*, face some problems, mainly related to the untriggered nature of the movement or to the availability of two structures.

The hypothesis that a different distribution of focus corresponds to a different meaning conveyed by the sentence in Basque has been formulated by several scholars (Ortiz de Urbina 2003; Irurtzun 2016; Sainz-Maza Lecanda 2017 to cite the more recent works).

Before dealing with this issue in section 3.3, I introduce some cross-linguistic observations regarding the relation between pre-verbal position and focus.

3.1 Pre-verbal position

Several languages require *wh*-elements to be in a linear position contiguous to the verb in order to produce a grammatical non-polar question, while the *wh-v* complex can surface in any position of the sentence, i.e. *wh*-fronting is not required as in languages like English or Italian.

Among these languages, Malayalam, a Dravidian language spoken in south-western India, shares some features with Basque in addition to the required *wh>V* adjacency, namely: basic SOV order with a relatively free word order configuration and obligatory *focus>V* adjacency. In order to obtain said adjacency, a downward movement seems to be required, either if scrambling is involved or another type of movement takes place. This is problematic from a theoretical point of view, in particular if Kayne's (1994) *antisymmetry* theory is adopted, given that the latter proposes exclusively leftward movement.

3.1.1 *The low periphery of the clause*

In order to by-pass this theoretical problem, Jayaseelan (2001) proposes a universal order with a Spec-Head-Complement configuration in line with Kayne (1994) and consequently, he claims that the SOV surface order of Malayalam is the derived one. The latter would result from the raising of VP internal arguments that move to [Spec, XP] positions, where XPs are functional heads higher than VP. The subject moves to [Spec, IP], hence, the functional projections that can host the verbal arguments must be in an area comprised between IP and vP.⁵³

In order to account for the adjacency between *wh*-elements in pre-verbal position and verb, Jayaseelan (2001) hypothesizes a Focus Phrase (FP) that immediately dominates vP, whose specifier position hosts *wh*-words. All the other arguments and adjuncts which are generated within the vP, move past [Spec, FP] to derive the SOV order.

⁵³ Jayaseelan (2001) does not explain what the trigger for the movement described here is. The issue is related to the nature of the heads which host the moved arguments that is not clarified either. He only points out that *movements cannot be attributed to Case-checking for various reasons* (p.46).

Compare the Malayalam example in (6a) and its Basque counterpart in (6b):

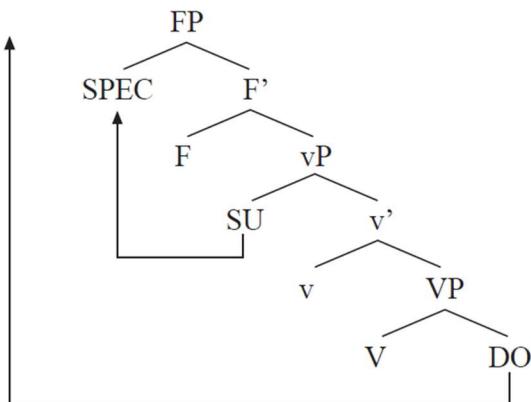
6. a) ninn-e aarə aTiccu ?
 you.ACC who beat.PST
 ‘who beat you?’
- b) (zu) nork jakin?
 you.ABS who.ERG know.PRS
 ‘who know you?’

Jayaseelan (2001) [1a] adapted

Both sentences share the same properties, namely, they are transitive structures with a subject which is a *wh*-element that thus needs to check a [+wh] feature in FP, while the object moves to join one of the higher XPs described above.

The structure proposed by Jayaseelan for Malayalam (7) could accommodate the Basque sentence in (6b):

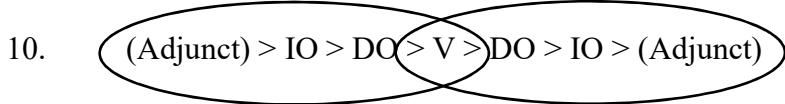
7.



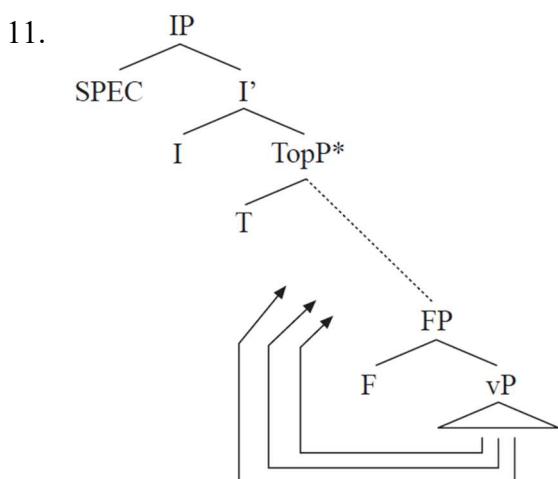
As I have pointed out above, both Malayalam and Basque are SOV languages and they share the same linear unmarked order, as far as VP internal elements are concerned. This is the order generally found among the elements in the VP domain of SOV languages, that is, (Adjunct)>IO>DO>V: compare Malayalam in (8) and Basque in (9):

8. Ŋaan innale Mary-k’k’ə oru kattə ayaccu
 I yesterday Mary.DAT-det letter gave
 ‘Yesterday I gave a letter to Mary’
9. Atzo gutuna Mireni eman nuen
 Yesterday letter-det.ABS Miren.DAT give.PRF aux.1SG.PRS
 ‘Yesterday I gave a letter to Miren’
- Jayaseelan (2001) [10], adapted

Comparing the sentences above with their glosses, it can be noticed that their linear order is the mirror image of the same portion of the structure in English (or other SVO languages, e.g. Italian):



The movement outside VP illustrated above is thus an instance of ‘nested movement’, according to Jayaseelan (2001), since this would avoid the presence of a series of crossing movement to derive the mirroring order from the postulated, basic SVO to SOV. The landing site proposed for arguments and adjuncts that rise outside the VP must be located in a position higher than FP but lower than IP/T since VP-internal arguments are IP/T internal. In principle, they could be considered as instances of topicalization and consequently it could be proposed an analysis of this part of the clause, similar to the layered CP hypothesis by Rizzi (1997). The latter is characterized by having a number of repeatable topic-phrases that can be hosted both above and below FocP and this would account for the possibility to have any order of arguments and adjuncts. However, Jayaseelan (2001) points out that this possibility would not explain the canonical order of arguments in Malayalam. Crucially, canonically ordered arguments do not exhibit any effect of topicalization since *topics* must be given information, i.e., previously mentioned in the discourse. Therefore, at least in Malayalam, it seems that the nested movement of the arguments targets a position lower than TopP (11):⁵⁴



⁵⁴ The reason for the preference of (11) over a structure in which the elements that move out of VP land in a position higher than Top* is based on observations on definiteness/indefiniteness in Malayalam and Germanic languages such as Dutch or Icelandic. The possibility for Basque to have similar features needs further investigation.

Jayaseelan (2001) proposes that the layer above vP contains a TopP* below FP which is claimed to be ‘defocused’ and it is systematically past by arguments that move outside the VP in Malayalam. The vP periphery would have thus the same configuration of the higher one in having Topic projections both above and below FocP. The presence of this TopP below FP is based on evidence from Dravidian (in Tirumalesh, 2006), a language in which post-verbal constituents are exclusively topics.

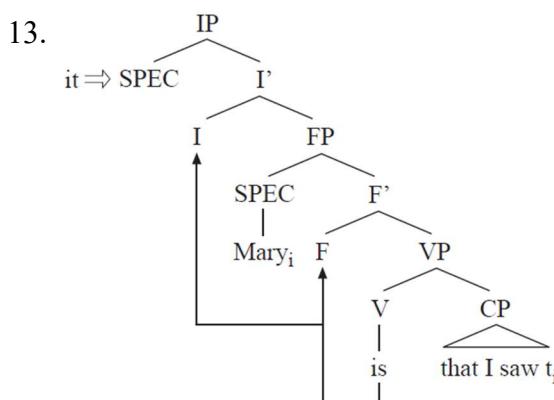
As far as Basque is concerned, the post-verbal position does not seem to have this feature:

12. Mireni milioi bat tokatu zaio loterian
 Miren.DAT million one win.PRF aux.3SG.PRS lottery-det-loc
 ‘Miren won a million with the lottery’

This is an instance of (mirative) focus in which the amount of the prize is singled out, nevertheless, *loterian* ‘with the lottery’ is not given information, i.e. semantically speaking, it cannot be considered as an instance of topic.

The structure proposed by Jayaseelan (2001) seems to be appropriate to account for scrambling phenomena occurring in the Dutch and German *mittelfeld* and it explains English cleft structures (13). The so-called ‘cleft focus’ is hosted in [Spec, FocP] within IP and an expletive subject is merged in [Spec, IP] since the copula obligatory raises to IP in English.

The derivation proposed by Jayaseelan (2001) is the following:



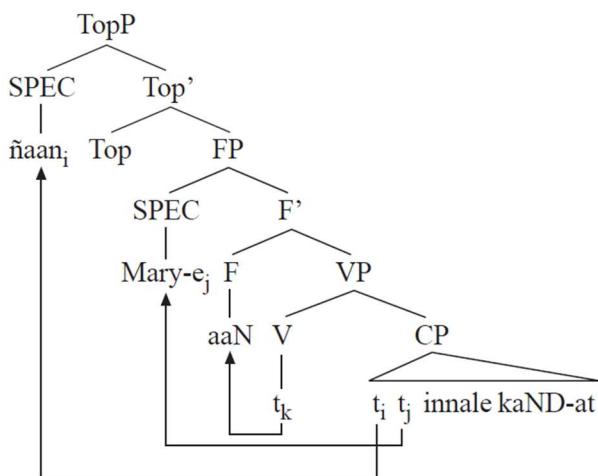
The structure in (13) is the *natural way to ask a question in Malayalam [...] a question word is placed in the ‘cleft focus’* (Jayaseelan 2001, p.63), that is, in [Spec, FocP]. Malayalam copula can be considered as a sort of FOC-marker, since it singles out an element which is interpreted as a focus and it can ‘float’, surfacing in any position of the cleft clause:

In chapter 1, I showed that Basque can make use of cleft-like structures like the one in (15) to have a narrow focus reading on the element placed before the auxiliary, and this is one of the few possible structures in which the complex [participle + auxiliary] can appear divided:

15. Emakumea du Jonek ikusi
Woman-det.ABS aux.3SG.PRS Jon.ERG see.PRF
'It is the woman, that John has seen'

However, in these structures the focalised element, in this case the DO *emakumea* ‘the woman’, tends to be fronted and to appear in first position. In other words, the structures proposed by Jayaseelan to account for English and Malayalam cleft sentence as instances of focus (16) need further investigation to be applied to Basque:

16. a) Ŋaan **Mary-(y)e** aaNə innale kaND-atə
I Mary.ACC is yesterday saw.NOM
'It is Mary that I yesterday'



3.1.2 Other evidence for a vP periphery

The part of the sentence structure that can be considered as the ‘low periphery’ of the clause has been investigated by several scholars, to account for a number of different phenomena in different languages.

In particular, Belletti (2004) proposes the existence of an IP-internal ‘low-periphery’ of the clause in Modern Italian to account for the distribution of post-verbal subjects. Poletto (2008) proposes the presence of a vP-periphery to account for certain OV orders in Old Italian (OI), which is not an OV language in principle. She argues that the OV order is the result of an operation which is responsible for the movement of a focalized element to a [Spec, FocP] position which is lower than the subject and higher than vP and this triggers some V2 configurations which can be observed in this language.

Hinterhölzl and Petrova (2005), propose a movement of the VP internal arguments to XP licensing positions in the Old High German middle field, similar to the one proposed by Jayaseelan (2001) for Dutch middle field.⁵⁵

Beside the evidence in favour of the existence of a portion of the clause that contains (at least) a FocP and a TopP, the hypothesis of a ‘vP periphery’ can be theoretically justified assuming a Minimalist framework (Chomsky 1995; 2001; 2002) following which two phases CP and v*P are identified. *CP and v*P are propositional units, in that all theta-roles are assigned in vP, and CP is a full clause including tense and force* (Chomsky, 2000 p.106). According to Giorgi (2016), hence, each phase has a left-periphery which contains a series of functional heads whose features mirror the ones identified for the CP layer proposed in Rizzi (1997).

In particular, Giorgi (2016) extends the analysis of the v*P-periphery by analysing the distribution of three of the higher adverbs in Cinque’s hierarchy (1999), namely epistemic (*probably*), evaluative (*fortunately*), and evidential (*allegedly*) adverbs which can be considered as *propositional adverbs in that, by means of their presence, the speaker -or the superordinate subject for embedded contexts - qualifies the whole subsequent domain to speaker’s judgement over the event* (Giorgi, 2016, p.101). She proposes two positions available to these adverbs, one for each ‘periphery’, consequently, the vP periphery contains both moved elements and constituents which are base-generated there.

The discussion in Giorgi (2016) is based on Italian data, but the proposal should hold, in principle, cross-linguistically, given that the hierarchical order of adverbs, i.e. functional heads,

⁵⁵ See also Paul (2006) for Chinese and Alboiu (2002), who proposes that *whs* and *focus* appear in [Spec, IP] in Romanian.

proposed in Cinque (1999) is claimed to be universal. The latter is indeed claimed to be respected in Basque (Haddican 2006), if an underlying SVO order is assumed, in line with the hypothesis that the negative order in Basque is the merged one. The distribution of the adverbial particle *omen* ‘allegedly’ has been investigated by Etxepare and Uria (2016) and, as I pointed out in chapter 1, it has been confirmed that *omen* is one of the few elements that can be found between the participle and the auxiliary, and between the negation and the auxiliary. It is thus part of IP and its distribution is comparable with the one proposed by Giorgi (2016) for Italian epistemic adverbs.⁵⁶

Beside focus and adverbs distribution in the low-periphery of the clause, among the different phenomena that can provide evidence for the existence of such portion of the structure, Giorgi and Haroutyunian (2016) analyse Modern Eastern Armenian (henceforth MEA) which is an SOV language that uses V2 order to mark (any kind of) focus in the left periphery of the clause, i.e. in the CP.

A comparison with Basque is interesting, given that the latter shares with MEA some properties, in particular regarding the verbal system and the word order. In particular, the majority of MEA verbs are periphrastic (17), just like Basque ones, and the auxiliary, which in MEA is the verb ‘to be’, is a clitic and it cannot therefore appear as the first element of a sentence (18):

17. Siran-ə salor-ə ker-el ē
 Siran-ART plum-ART eat-PRF.PTCP AUX.3SG
 ‘Siran has eaten the plum.’

18. * ē ker-el Siran-ə salor-ə
 AUX.3SG eat-PRF.PTCP Siran-ART plum-ART
 ‘Siran has eaten the plum.’

Giorgi and Haroutyunian (2016), [1];[2]

The auxiliary in Armenian can cliticize on a non-verbal element in a sentence-initial position and in that case the constituent that precedes it, is interpreted as focus. There cannot be any other interpretation for a sentence like (19) than ‘it is Siran that ate the plum’:

⁵⁶ This kind of adverbs can have different distributions when they have a parenthetical intonation. Etxepare and Uria (2016) treat these constructions as adjuncts to the clausal spine. Giorgi (2011 and subsequent works) proposes a different analysis in which parenthetical are host in prosody-oriented heads that are integrated in the syntactic representation of the sentence, remaining ‘not completely’ part of it. This hypothesis turned out to be useful to account for several phenomena and I will return on the topic to account for the role or ‘intonational breaks’ in the identification of focus.

19. SIRAN-n ē salor-ə ker-el
 Siran-ART AUX.3SG plum-ART eat-PRF.PTCP
 ‘Siran-foc has eaten the plum.’ Giorgi and Haroutyunian (2016), [4]

The sentence above is a case of corrective focus of the subject NP, but the same strategy can single out also the participle and adverbs as focus (not necessarily contrastive).

As I showed above, it is possible to use the auxiliary to mark focus in Basque, especially in narrations and in some varieties (however, this structure is judged grammatical also by speakers of the standard variety) and, in general, the ‘verbal complex’ has the same role in the identification of focus as the auxiliary in MEA (20).⁵⁷

20. a) Jonek du jan okarana
 Jon.ERG has.AUX eaten.PRT plum-det.ABS
 ‘it is Jon that ate the plum’
- b) Jonek jan du okarana
 Jon.ERG eaten.PRT has.AUX plum-det.ABS
 ‘Jon has eaten the plum’

Moreover, *wh*-structures have a comparable behaviour, being obligatory in MEA for *wh*-elements to be adjacent to the auxiliary in a V2 configuration (21). In Basque the question word does not need to appear in first position (22), however, this seems to be the unmarked structure since *wh*-constituents generally surface as the first element in the structure and (22) is interpreted as a topicalization: ‘as for Jon, what has he eaten?’.

21. Inč‘ ē Siran-ə ker-el?
 What AUX.3SG Siran-ART eat-PRF.PTCP
 ‘What has Siran eaten?’ Giorgi and Haroutyunian (2016), [14]
22. Jonek zer jan du?
 Jon.ERG what eat.PRF aux.3SG.PRS
 ‘what has Jon eaten?’

In MEA this is the position that also hosts both corrective and informational focus that move to [Spec, FocP], in the left periphery of the clause, which is activated by the movement of the auxiliary to the head of FocP in the layered CP proposed in Rizzi (1997). Consequently, the

⁵⁷ In MEA the aorist verbal form is the only synthetic one and its distribution is the same of the auxiliary. Basque synthetic verbs, which are not related to any particular verbal form, behave in the same way.

derivation of focus structures does not provide evidence for the presence of a ‘low-left periphery’ that hosts focus in MEA.

Nevertheless, Giorgi and Haroutyunian (2016) also discuss the ungrammatical status of structures like (24), and they argue that MEA v*P periphery hosts the position to licence indefinites:

23. Siran-ə mi salor ē ker-el
Siran-ART a plum AUX.3SG eat-PRF.PTCP
'Siran has eaten a plum.'

24. *Siran-ə mi salor ker-el ē
Siran-ART a plum eat-PRF.PTCP AUX.3SG
'Siran has eaten a plum.'

When the indefinite *mi salor* ‘a plum’ is present, the auxiliary must be adjacent to it and the canonical word order is ungrammatical. *If we conceive of focus as evoking a set of alternatives contextually identified, we can say that indefinites can somehow fit in this definition* (Giorgi and Haroutyunian 2016, p.20) and this would explain the distribution in (23) and (24). However, if a focus is present in the sentence, the auxiliary must be adjacent to it in the left-periphery of the clause and this led to an analysis of indefinites as hosted in the Specifier of a lower Foc-projection in whose head the auxiliary moves to licence indefinite. If the left periphery is activated, the verb moves further to licence focus in a higher position.

The role of definiteness/indefiniteness in Basque needs to be further studied, since a similar constraint does not seem to present, however the interpretation of *emakume-A-k* ‘a/the woman-ergative’ in (25b) as a definite article could not be appropriate in certain contexts:

25. a) Emakume batek Miren ikusi du
woman a.ERG Miren.ABS seen.PRF aux.3SG.PRS
'a woman saw Miren'
b) Emakumeak Miren ikusi du
woman-the.ERG Miren.ABS seen.PRF aux.3SG.PRS
'the woman saw Miren'

For the time being, I will not consider definiteness/indefiniteness as a feature responsible for any kind of syntactic operation in Basque.

I recall here the proposal concerning *focus* structure in Basque by A. Elordieta (2001) that I presented in chapter 2, which is similar to the one illustrated above for MEA, at least as far as PF is concerned, for the so call left-dislocated foci are hosted in [Spec, CP]. However, this proposal differs in some crucial points. First of all, A. Elordieta (2001) claims that the focus phrase is generated in the left periphery of the clause and does not move there; secondly, an operator co-indexed with *focus* is inserted in the specifier of the CP that hosts wh-constituents, which is lower than the position that hosts focus, to account for the presence of weak crossover and reconstruction effects which are diagnostic of movement.

In the case of Basque, it is the verbal complex, and not the auxiliary, that moves to the head of CP, attracted by the operator. Elordieta (2001) follows Ortiz De Urbina (1994) in extending Rizzi's (1991) *wh*-Criterion to a general *Affective Operator Criterion* formulated as follows:

26. *In focus constructions, the focus element and the inflected verb in Basque (specifically, Infl) have each a [+focus] feature which must be checked off by Spec-head agreement in a functional projection, more specifically, in FocP [or [Spec, CP]].*

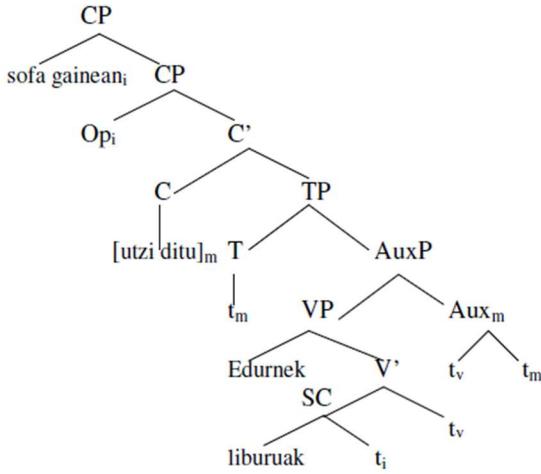
Elordieta (2001), p.145 [55]

According to Elordieta, thus, when the verbal complex does not appear in final position, the verb – which is adjoined to Aux to support it morphologically -- moves to T as a complex head before reaching the landing site in CP where it checks its [+focus] feature.⁵⁸

The structure that she proposes is the following (27):

27. *Sofa gainean utzi ditu Edurnek liburuak*
Sofa.ABS on-the.GEN leave.PRF aux.3SG.PLagr.PRS Edurne.ERG book-det.PL
'Edurne left the books ON THE SOFA'

⁵⁸ See section 2.4.4.



According to this view, therefore, the CP is formed both by moved elements and constituents base generated there. However, Giorgi (2015) claims that the items base generated in the left periphery belong to an additional layer that contains prosody-oriented heads that hosts certain discourse-related elements such as Hanging Topic and Clitic Left Dislocation.

I will return on the topic in the next section; for the time being, I will claim that left-peripherical foci in Basque are moved there to check their features, following Rizzi's (1997) proposal for Italian corrective focalizations.

3.1.3 Some remarks on multiple wh-questions in Basque

Being focus strictly related to *wh*-constructions, it is worthy analysing another special property that Basque exhibits: when multiple *wh*-elements are present in the structures, no superiority effects arise among the post-verbal elements (28), while they exhibit a strict order when two elements surface pre-verbally (29), (Jeong 2007):

28. a) Nork eman dio nori zer?
 who.ERG given has to-whom.DAT what
 ‘Who gave what to whom?’
- b) nork eman dio zer nori?
 c) nori eman dio nork zer?
 d) nori eman dio zer nork?
 e) zer eman dio nork nori?
 d) zer eman dio nori nork?

Jeong (2007) [5]

29. a) Nork nori eman dio zer?
 Who.ERG to-whom.DAT given has what
 ‘who gave what to whom?’
- b) nork zer eman dio nori?
 c) nori zer eman dio nork?
 d) nork nori zer eman dio?
 d) *nori nork eman dio zer?
 e) *zer nori nork eman dio?
 f) * zer nori eman dio nork?

Jeong (2007) [6], adapted

No superiority effects arise if the *wh* which violates superiority is followed by an intonational break (29). Conversely, superiority effects arise among post-verbal *whs* if a non-D-linked element is inserted, modifying the semantic values of a D-linked *wh*. In the example *arraio* ‘what the hell’ (30):⁵⁹

30. Zer # nori eman dio nork?
 What to-whom.DAT given has who.ERG
 ‘Who gave what to whom?’
31. *Nork eman dio nori zer arraio?
 Who.ERG given has to-whom what-the-hell.ABS
 ‘Who gave what (*the hell) to whom?’

According to Reglero (2003) emphatic, non-D-linked elements like *arraio* ‘what the hell’ cannot modify *wh*-phrases that remain *in-situ* and this is confirmed by the fact that the translation in (30) would not be grammatical if said element was present.

Pesetsky (1987; 2000, in Reglero 2003) observes that non-D-linked elements must undergo fronting, and this is precisely the case noted here for Basque. Jeong (2007) advocates that D-linked *wh*-phrases are Topics which target a TopP position either in the CP periphery or in the vP periphery of the clause. The sentences where superiority effects arise are thus the only genuine instances of *wh*-fronting while the other cases are topicalizations, an operation that does not require to respect the principle of Closest Attraction. The affirmative counterpart of a multiple *wh*-question is an instance of multiple-*foci* which are possible in Basque and do not need to surface in any particular order (32):

⁵⁹ Jeong (2007) considers *nork?* ‘who?’ as a covert D-linked element like ‘which person?’

32. a. JONEK MIRENI MUXU BAT eman zion
 Jon-Erg Miren-Dat kiss one give aux
 ‘It is JON that gave a KISS to MIREN’
- b. MIRENI JONEK MUXU BAT eman zion
 c. MUXU BAT MIRENI JONEK eman zion
 d. MUXU BAT JONEK MIRENI eman zion
 e. JONEK MUXU BAT MIRENI eman zion
 f. MIRENI MUXU BAT JONEK eman zion

Jeong (2007) [50]

To account for this unordered focalization, Jeong (2007) claims that these are instances of corrective focus, hence, they entail a reference to the discourse. He thus proposes to treat them as elements having both a [+ focus] feature and a [+ topic] feature. Consequently, they check the former in [Spec, FocP] and then move to [Spec, TopP]. The latter, does not require that elements which move there, follow the principle of ‘Closest Attraction’, that is, they can surface in any order without affecting the grammaticality of the structure.

As I pointed out at the beginning of chapter 2, however, these types of focus require a highly specific and corrective context. According to my informants it is only possible to express contrastivity, via a prosodic strategy similar to the one active in (33):

33. a. JONEK # MIRENI # MUXU BAT eman zion
 Jon-Erg Miren-Dat kiss one give aux
 ‘It is JON that gave a KISS to MIREN’

The pre-verbal element is the most prominent, i.e. the real focus, and no intonational break appears between this constituent and the focus. This configuration will be analysed in chapter 4, where I provide a prosodic analysis of Basque focus-structures.

3.2 The syntax of focus typology in Basque

So far, except for the contrastive post-verbal focalization proposed by Ortiz de Urbina (2002) and summarized in chapter 2, I have not presented any data to account for a different interpretation of *foci* that surface in different positions in the sentence. The observations made above about multiple-*foci* structures, however, lead to an investigation of focus positions in Basque that takes into account the semantic values conveyed by *foci* in different positions.

According to Elordieta (2001) contrastivity has no syntactic role in Basque and it is simply a property that focus can have, depending on the context in which a sentence is produced. Nevertheless, several works on the topic (Ortiz de Urbina 2002; Irurtzun 2016) and my own data, point to a different conclusion.⁶⁰

Etxepare and Uribe-Etxebarria (2008) investigate the scope relation between focus and negation in Spanish, claiming that, despite a canonical SVO order, a VSO order is grammatical and conveys an almost identical interpretation (34):

34. S – V – O

- a) Pedro ha venido
Pedro has come
- b) Pedro ha comprado el pan
Pedro has bought the bread
- c) Pedro ha comprado pan
Pedro has brought bread

V – S – O

- d) Ha venido Pedro
has come Pedro
- e) Ha comprado el pan Pedro
has bought the bread Pedro
- f) Ha comprado pan Pedro
has bought bread Pedro

Etxepare and Uribe-Etxebarria, 2008 [1; 2]

The structure in (34d) allows three possible readings for its negative counterpart (35):⁶¹

35. No ha venido Pedro
NEG has come Pedro

- a) No ha venido Pedro (sino que se ha ido María)
(It is not the case that Pedro has come, but rather that María has left)
- b) No ha venido Pedro, (sino María)
(The one who came isn't Pedro, but María)
- c) No ha venido Pedro (y no María)
(The one who hasn't come is Pedro, and not María)

Etxepare and Uribe-Etxebarria, 2008 [3]

⁶⁰ Elordieta (2001) does not explicitly ban distributional differences among other types of focus, however, I consider it as entailed in her argumentation.

⁶¹ I underlined the scope of sentential negation in the three different readings available.

In (35a) the negation takes scope over the whole clause, in (35b) it takes scope over the post-verbal subject while in (35c) it is the post-verbal subject that takes scope over the negation, despite the fact that the former follows the latter.

Considering now (34f) the possible interpretations are two since the one with a clausal-level contrast is ruled out as shown by the ungrammaticality of (36a):

36. No ha comprado el pan Pedro

- a) No ha comprado el pan Pedro, (# sino que ha traído la leche María)
Not has bought the bread Pedro, but that has brought the milk María
- b) No ha comprado el pan Pedro (sino María)
Not has bought the bread Pedro but María
(The one who bought the bread isn't Pedro, but Mary)
- c) No ha comprado el pan Pedro (y no María)
Not has bought the bread Pedro, and not María
(The one who hasn't bought the bread is Pedro, and not María)

Etxepare and Uribe-Etxebarria, 2008 [5]

Finally, (37), in which the object is an indefinite, is the most restrictive case since it allows only one possible reading, namely the one in (37c), i.e. the one in which the post-verbal subject has scope over negation:

37. No ha comprado pan Pedro

- a) No ha comprado pan Pedro (# sino que ha traído leche María)
Not has bought bread Pedro but that has brought milk María
- b) No ha comprado pan Pedro (# sino María)
Not has bought bread Pedro but María
- c) No ha comprado pan Pedro (y no María)
Not has bought bread Pedro and not María
(The one who hasn't bought the bread is Pedro, and not María)

Etxepare and Uribe-Etxebarria, 2008 [6]

Following Herburger (2000), Uribe and Etxe-Barria (2008) consider the interpretations in (35,36,37b) and (35,36,37c) as *bound* and *free* reading respectively. In the former, the negation has scope over the focus which is consequently negated, i.e. someone came, but not Pedro. On the other hand, in (35, 36, 37c) it is the subject that has scope over the negation, i.e. it is Pedro who came, not someone else. They baptise the new configuration (i.e. 35, 36, 37a) *wide* focus, since the negation takes scope over the entire sentence, i.e. Pedro did not come, someone else

did something else. The semantic differences resulting from the variation of the scope of the negation in the three interpretations, following Herburger (2000) are suggested to be syntactically explained in terms of C-command.

Basque -- and other languages, e.g. Hungarian -- overtly disambiguates between *bound* and *free* readings: when the focus C-commands the negation, it is interpreted as *free focus* while if the focus is C-commanded by the negation it is interpreted as *bound focus*:

38. a) Ez da MIREN etorri
 NEG aux.3SG.PRS Miren.ABS come.PRF
 ‘It is not Miren who came’
- b) MIREN ez da etorri
 Miren.ABS NEG aux.3SG.PRS come.PRF
 ‘It is Miren who did not come’

Etxepare and Uribe-Etxebarria (2008) propose the generalization in (39) for the word order of negation and focus in Basque, assuming that C-command results in linear precedence, in line with Kayne’s (1994) *Linear correspondence axiom* (LCA), as demonstrated by the examples in (40):

39. *Free Focus > NEG > AUX > Bound Focus > V(PRT)*

40. a) ANDONIRI ez diot ardoa ekarri (, eta ez Mikeli)
 Andoni-dat neg aux wine brought, Mikel-dat/and not Mikel-dat
 “It is to Andoni (and not to Mikel) that I didn’t bring the wine”
- b) Ez diot ardoa ANDONIRI ekarri (, Mikeli baizik)
 neg aux wine Andoni-dat brought Mikel-dat but
 “It is not for Andoni (but for Miren) that I brought the wine”

Ortiz De Urbina 2002, 515 [7]

However, the generalization in (39) fails to account for the post-verbal ‘focus of correction’ identified by Ortiz de Urbina (2002):

41. Ez diot ardoa ekarri # ANDONIRI(, *baizik eta Mikeli) (eta ez Mikeli)
 neg aux wine brought Andoni-dat, but Mikel-dat/and not Mikel-dat
 “It is to Andoni (and not to Mikel /*but to Mikel) that I didn’t bring the wine”

Ortiz De Urbina 2002, 515 [8]

In particular, Ortiz de Urbina (2002) shows that in (41) it is the focus that has scope over the negation, conveying an interpretation like the one in (40a). According to his analysis, the two constructions are comparable, given that both have a contrastive reading and the focus gives rise to an existential presupposition on the event.

As stated above, the post-verbal focus in (41), however, is an instance of *focus of correction* which is *more similar to echo-questions than to normal information questions*. In the former the request for identification is directed to an element in a previously uttered statement; in corrective focalization sentences, an element in a previously uttered statement is changed to provide a corrected identification (Ortiz de Urbina 2002, p. 514). This definition corresponds to the one provided in Bianchi, Bocci, and Cruschina (2015, 2016), who claim that corrective focus, unlike contrastive one, must contain at least one of the alternatives activated by the context.

According to Ortiz de Urbina, the semantic values shared by the two types of focus (i.e. corrective vs contrastive) result from the same syntactic structure: (41) is derived from (40a) by remnant movement to a position higher than the focus, i.e. a topic position:

- a) [FocP Andoniri_i F0 [IP t_i ardoa ekarri diote]] (*focus movement*)
- b) [TopP [t_i ardoa ekarri diote]_j Top0 [Andoniri_i Foc0 t_j]]] (*remnant movement*)

According to the terminology used by Etxepare-Uribe Etxebarria (2008) the corrective focus proposed by Ortiz de Urbina (2002) is an instance of *free focus* and the scope-relations with negation could be explained if NEG moves to the same TopP.

To sum up, the proposal of Etxepare and Uribe-Etxebarria (2008) claims that an *in-situ* position for focus cannot explain some of the scope properties of focus, when it co-occurs with negation. The observations in Ortiz de Urbina (2002) lead to the conclusion that post-verbal *foci* in Basque have the same behaviour as left-peripheric ones and this can be explained by an analysis considering the two structures as derived by means of the same type of movement.

3.2.1 A position in the low periphery for Basque focus

All the considerations above must be taken into account in order to provide an exhaustive analysis of focus phenomena in Basque. The existence of a focus position lower than negation (named Foc₂ in Etxepare and Uribe-Etxebarria, 2008) that changes the interpretation of the sentence, suggests the presence of a different articulation of the syntactic

structure of Basque which can be compared to the one proposed by Jayaseelan (2001) for Malayalam.

Before going any further a crucial question must be asked: to what extent focus typology affects the distribution of foci in Basque? As far as I know, this question has never been addressed before and I thus collected data in order to deal with this issue.

3.2.2 Information Focus

As I pointed out in chapter 2, any sentence that brings new information to the common-ground can be analysed as an instance of information focus. On the other hand, all the other interpretations of focus need a reference, be it a discourse-antecedent, a shared belief or presupposition among the participants to a conversation or an implicit knowledge part of the common-ground shared by the interlocutors. In other words, to be interpreted in the desired way, focus needs a context that provides the background for an utterance to be felicitous.

In order to elicit the production of different types of focus by native speakers of Basque, I thus created a series of contexts, asking the speakers to produce the appropriate sentence for the given scenery. The results I obtained seem to point to an analysis in terms of movement of focus-structures in Basque and I will present below the most interesting cases as far as word-order choices are concerned.⁶²

In order to confirm previous analysis (see Laka and Erdocia 2012 for an overview), I provided a simple context in the form of the brief sentences in brackets, describing an event and I asked the informants to answer the question *zer gertatu da?* ‘what happened?’. Every speaker produced the expected, informationally-neuter order S IO O V:⁶³

42. a) [Jon saw Miren at the park]
- b) Gaur Jonek parkean Miren ikusi du
Today Jon.ERG park.LOC Miren.ABS see.PRF aux.3SG.PRS
- c) Jonek gaur parkean Miren ikusi du
Jon.ERG Today park.LOC Miren.ABS see.PRF aux.3SG.PRS

⁶² A word of caution is in order. The interviews and the elicited structures analysed in this section are not part of a comprehensive experimental study and they have been recorded in a non-controlled environment. The goal of this preliminary data collection is to observe if any distributional pattern emerges when elicited. Consequently, this must not be considered an exhaustive overview, but rather a possible starting point for future and more accurate surveying.

⁶³ Non-argumental PPs have a less predictable distribution, but their role is marginal in the definition of word-order preferences.

43. a) [You and Ane bought a new car]

- b) Anek eta biok auto berria erosi dugu.
Ane.ERG and both-of-us car new-det.ABS buy.PRF aux.1PL.PRS

44. a) [Jon gave a red shirt to Miren]

- b) Jonek Mireni kamiseta gorria eman zion
Jon.ERG Miren.DAT shirt red-det.ABS give.PRF aux.3SG.PST

I then queried every constituent via the appropriate *wh*-questions, to confirm that the adjacency focus-verbal complex is required to produce a narrow focus reading:

45. Nork ikusi du Miren Parkean gaur?
who.ERG see.PRF aux.3SG.PRS Miren.ABS park.LOC today
'who has seen Miren at the park today?'

- a) Miren parkean gaur Jonek ikusi du O LOC TEM S V AUX
b) Jonek ikusi du Miren parkean gaur S V AUX O LOC TEM

As expected, two preferred positions of focus are present: one in which the target of the focus reading appears to move in order to surface at the left of the verbal complex and one in which it is the verbal complex that appears in a different, i.e. fronted, position. The speakers maintain the preferred strategy for every questioned element and the order of the other constituents remains the same in every structure.

I will adopt a view on movement that, following 'antisymmetry' theory (Kayne, 1994) bans lowering operations and I thus analyse the constructions in (45) as derived from movement of the subject *Jonek* to [Spec, FocP] that bears a [+ focus] feature in the low left periphery. The feature is checked in a Spec-Head relation termed 'focus criterion' in Horvath (1995). The verbal complex, hence, moves to Foc°, while the rest of the sentence is hosted either in TopPs higher or lower than FocP or in XPs similar to the ones identified in Jayaseelan (2001). This interpretation, in line with previous works on focus-structures in CP, in particular Rizzi (1997 and subsequent works), explains straightforwardly the movement diagnostics cited above and considered by Elordieta as the result of the movement of a focus-operator.

I suggest that the position is in the v*P periphery, assuming a basic SVO order and the movement of VP internal arguments to the XP positions proposed by Jayaseelan. Considering this possibility, a further movement to the left periphery of the clause would be untriggered.⁶⁴ Nevertheless, both in terms of information structure and of linear order, the predictions are met since the focalized constituent surfaces preverbally and the cluster [foc+(V+AUX)] appears either in clause final position or in clause initial position.

3.2.3 Mirative focus

The data regarding other types of focus are less homogeneous.

Consider the examples in (46), which are instances of mirative focus, similar to the one that Cruschina (2012) identifies as a focus expressing surprising and unexpected information (see 2.2.3):

46. a) [How would you say to your friend Aitor that Ane won a milion euros at the lottery?]
- b) Anek ez du bada milioi bat irabatzi loterian
Ane.ERG NEG aux.3SG.PRS COND million one.ABS win.PRF lottery.LOC
'Ane won a million with the lottery!'
 - c) Badakizu Anek milioi bat irabazi duela loterian
know.3SG Ane.ERG million one.ABS win.PRF aux-comp.3SG.PRS lottery.LOC
'Do you know that Ane won a million with the lottery!?'
 - c) Enteratu al zara? Aneri milioi bat euro tokatu zaio
find.PRF *al* aux.2SG.PRS Ane.DAT million one euro.ABS win.PRF aux.3SG.PRS
loterian!
lottery.LOC
'Did you find out? Ane won a million euros with the lottery!'

First of all, it is important to notice that each of the answers in (46) singles out *milioi bat (euro)* 'a million' as the most relevant element in the structure via the canonical verb-adjacent strategy. These cannot be considered information *foci* since the three sentences use pragmatic strategies to convey, and to emphasize, specifically, the fact that the amount of the prize is unexpected, while it is reasonable to think that it is surprising that Ane won anything at all.

From a semantic point of view, it can be argued that the polar questions in (46c) and (46d), and the emphatic phrases in (46b) express an evidential value or, at least, the speaker's surprise about the event described by the sentence. I will thus consider these as instances of mirative structures, comparable with the values expressed by the adverb *harrigarriro* 'surprisingly'

⁶⁴ Irurtzun (2005) points out that, however, this approach does not provide any information about the reason why a constituent XP bears a [+ focus] feature, since it assumed that it simply entails said feature with no other explanation. He thus proposes the derivation I presented in chapter 2.

which, according to Cinque (1999; 2006), occupies the Spec position of a MoodP (*mirativity*). It seems reasonable to think that the values expressed by mirativity can be similar to the ones conveyed by the *propositional* adverbs analysed in Giorgi (2016). Hence, I will consider it as possibly hosted in the periphery of the vP phase along with the epistemic, evaluative and evidential adverbs. Moreover, (46c) and (45d) are technically questions and, specifically, they are rhetorical questions in the sense of Rohde (2006) who views a rhetorical question as a standard interrogative biased in its answer set. In other words, there is no need for an answer, since the answer is already part of the common-ground shared by the speaker and the addressee. The role of the question-like structures in (46c) and (46d) and of the exclamative, emphatic portion of the clause in (46b) is to express the unexpected values of the event the speaker is about to share.⁶⁵

On the contrary, (46b) has an interesting structure since on one hand, negation in this case is not semantically such, since it does not convey any negative meaning. It is, in fact, a pragmatic marker, conveying specifically the mirative meaning. On the other hand, the negation appears in the canonical position, i.e. adjacent to the inflected auxiliary which moves from its base position. It seems, thus, that is the participle that marks focus, and neither the entire verbal complex, nor the (inflected) auxiliary.

In addition, Irurtzun (2016) points out that the special type of contrastive focus Etxepare (1998) deals with, is actually a mirative construction. It does not exhibit the same distribution as (46). However, Etxepare (1998, in Irurtzun: 2016) argues that there is a sharp difference in the semantic values of (47a) and (47b):

47. a) [Jonek]F ekarri du ardoa [Standard focus construction]
 Jon bring aux wine
 '[Jon]F brought wine'

- (b)[Jonek]F ardoa ekarri du [Mirative focus]
 Jon wine bring aux
 '[Jon]F brought wine!'

Irurtzun, 2016 [33; 34]

⁶⁵ Rett (2011) claims that mirativity is used to communicate that a proposition has violated the expectations of the speaker, however, this seems to be appropriate for a counter-expectational value, which differs crucially from ‘simple’ mirativity in that the former requires a very specific context, and it is referred to an expectation of the speaker, not necessarily shared by the addressee. Giorgi (2018) analyses the structure of ‘counter-expectational questions’ advocating for a structure in which different considerations need to be done to account for the felicitous utterance of these structures. In particular, I consider (46) as not counter-expectational to the extent that the utterance time does not coincide with the event, namely, ‘I know that Ane won the lottery and I am communicating it to you, conveying surprise, that the event is *un*-expected (i.e. it is not strictly expected that Ane would not win the lottery, nor that she would not win a million, at the time of the utterance).

From a prosodic point of view, (47b) is claimed to be an exclamation. The semantic difference between the standard construction (47a) and the mirative one in (47b) is that *the former conversationally implicate the eventuality denoted by the open proposition in the (potential) question they answer*, while the (47b) *conventionally implicate it* (Irurtzun 2016, p.259). According to Etxepare (1998) this entails a difference in the syntactic position of the two *foci* in that standard focus undergoes A'-movement to [Spec, CP], while mirative moves to a lower A-position, probably within IP.

I suggest that this ‘exclamation’ is the prosodic strategy to mark a focus which is not in the preverbal position because it moves to the specifier of MoodP (mirative) to check the [+mirative] feature.

3.2.4 Corrective focus

As far as corrective focalization is concerned -- leaving aside the post-verbal foci identified in Ortiz de Urbina (2002) and presented above – two constructions emerge. One in which the antecedent, i.e. the corrected alternative, is explicitly mentioned (48b/c) and one in which is not (48a):

48. a) **Anek** Mireni kamiseta gorria eman zion
 Ane.ERG Miren.DAT shirt.ABS red-det.ABS give.PRF aux.3SG.PST
 JONEK eman zion kamiseta gorria.
 Jon.ERG give.PRF aux.3SG.PST shirt.ABS red-det
- b) Jonek Mireni kamiseta gorria **saldu** zion
 Jon.ERG Miren.DAT shirt.ABS red-det.ABS sell.PRF aux.3SG.PST
 Jonek kamiseta EMAN zion, ez zion saldu.
 Jon.ERG shirt.ABS give.PRF aux.3SG.PST NEG aux.3SG.PST sell.PRF
- c) Asteazkenean **bazkalorduan** egongo gara!
 Wednesday.TEM lunch-time.TEM stay.FUT aux.1PL.PRS
- d) Ez, bazkalorduan ez. Afarian egongo gara asteazkenean.
 NEG lunch.TEM NEG dinner.TEM stay.FUT aux.1PL.PRS Wednesday.TEM

In (48a) the subject is the target of the correction and it is fronted, arguably, in [Spec,FocP] in the left periphery of the clause. The same position is occupied by the focus of the second clause in (48c), in which the target of correction is explicitly negated, and the actual correction is uttered afterwards.

Conversely, in (48b) the lexical verb is corrected, and the speaker does not use one of the strategies proposed in the previous chapter, that is, s/he does not insert the light verb *egin* ‘to

do' and does not add the prefix *ba-*. Since the verb cannot appear in first position, in this case the strategy is purely prosodic in nature, and I will analyse this example in chapter 4.⁶⁶

For the time being, I will follow Irurtzun (2005), and will consider focus as moved to the left-periphery. More data should be collected in order to solve the ambiguity in the interpretation of the structures I showed in 2.4.5. However, I suggest that these *foci* move to the left periphery to check a feature [+ contrastivity] in FocP in the CP where discourse-linked elements are hosted.

The basic claim in both Elordieta's (2001) and Arregi's (2003) analysis is that focus is always *in-situ* and this cannot be accounted for following Jayaseelan's (2001) hypothesis of SOV as the derived order.

For reasons of space, I will leave aside any consideration on the vP internal structure of Basque, however I suggest that the structure proposed by Jayaseelan (2001) for Malayalam can accommodate Basque structures as well, accounting straightforwardly for the pre-verbal position of focalized items and explaining the presence of two FocPs in the sentence: one in the v*P periphery and one in CP.

3.3 Conclusions

Following Jayaseelan (2001), I will assume that arguments check their Case in a vP internal position and then move to XP positions above vP. The participle moves to Foc^o in the low periphery of the clause and a constituent bearing a [+focus] feature moves to the specifier of that phrase, attracted by that feature. In this way, a phrase can be singled-out as focus of the sentence and, more specifically, it has a *narrow focus* reading. The possible *wide focus* reading over the entire sentence in its canonical order is related to a specific case in which the sentence conveys exclusively new information.

However, a more prominent pitch accent, or another prosodic operation can be produced to emphasize the pre-verbal element when it appears in its canonical position, solving the potential ambiguity.

Consequently, given that a focalized phrase should be as small as possible (Büring, 2016), I suggest that the low peripheral FocP hosts (narrow) foci that do not need an antecedent, and they can appear to be fronted for reasons related to the discourse-configurational nature of

⁶⁶ One of the informants pointed out that structures with a fronted verbal complex is actually quite common, nevertheless, none of the speakers that I interviewed produced such type of sentence.

Basque. In particular, this is clear in answers to *wh*-questions that questioned a specific constituent where part of the sentence is indeed given information. This position is licensed by a feature cluster formed by [+ focus] and possibly another feature that conveys one of the values expressed by the adverbs that can be hosted in the low periphery of the clause.

The CP internal FocP hosts corrective focus since this kind of *foci* need an antecedent to be felicitously produced and check a [+ corrective] feature present in that head.

Several issues remain open, in particular as far as the representation of discourse-related items is concerned. According to Giorgi (2010 and subsequent works) there is an additional layer at the left of CP that hosts prosodic, discourse-oriented heads. It seems reasonable to think that, if the v*P periphery is present, it could host also the information about the view of the speaker over the clause, i.e. the features similar to the ones that could account for the mirative reading I presented above.

Moreover, it is not clear what is the (possible) role of the verb in the identification of focus. However, if this proposal is on the right track, it could be useful to account for the apparent free word order of Basque, in a way that turned out to be useful for several languages, in particular the ones listed at the beginning of this chapter. More data need to be collected to provide a comprehensive overview of Basque focus typology.

In chapter 4 I will analyse the same structures presented here from a prosodic point of view, in order to clarify if focus typology can also affect the prosodic realization of focus.

4. FOCUS AND PROSODY

In chapter 2, I introduced the important role that prosody plays in the interpretation of a constituent as an instance of focus. In particular, a focalised phrase needs to be stressed and, in many languages, focal stress is identified with the main sentential stress. This has been claimed to be the case of Basque (Elordieta 2001; Arregi 2003). However, the notion of stress, though it has been widely studied, is still debated among linguists since it arguably needs a more fine grained definition to account for the different phenomena perceived as stress. According to Roach (2009), ‘stress’ can be broadly defined as ‘phonetic prominence’ realized via several phonological and prosodic devices.

When a syllable (or a word) is more prominent than the others in a string, different features of stress can produce various results. One of these effects is pitch prominence, in which an element emerges from its context, that is, it is higher (or lower) than the rest of the prosodic phrase it is contained in. A high pitch corresponds to an intensified rate of vibration with respect of a fundamental frequency (F0) which is measured in Hertz and is different for each speaker. However, pitch is only one of the different phonological and prosodic components of ‘stress’, along with loudness and vowel lengthening. Sometimes the term ‘accent’ is used instead of stress. According to Roach (2009), the latter is the appropriate term to describe the phonetic prominence that several languages produce via a pitch accent (PA) on a specific syllable.⁶⁷

Having this distinction in mind, considering Basque in a cross-linguistic perspective, Hualde et al. (2002) argue that it belongs to the group of *pitch-accent languages*, which is an heterogeneous set of languages -- including Japanese, Swedish and Serbo-Croatian -- which differs in some properties both from the group of the *tonal languages* and from the one of *stress languages*. In particular, several dialects of Basque are characterized by the following features: (i) *lexical accented/unaccented distinction*; (ii) *invariable realization of accent as H*L*; (iii) *non-accentual phrase-initial rise %LH-*; (iv) *no durational correlates of accentual prominence*. (Hualde et al. 2002, p. 548); these features are shared by the Tokyo Japanese accentual system. Consequently, Hualde et. Al (2002) propose a subset called T(okyo)-type pitch-accent languages, which is defined as a ‘prosodic prototype’. In this new definition fall the majority of the western varieties of Basque, while the others are traditionally considered as belonging to

⁶⁷ ‘Tones’ result from the movement of Pitch accents that is used contrastively which conveys a different meaning of a word in the so-called ‘tonal languages’ (e.g. Chinese) or is a central part of intonation which can modify the information value of a structure (e.g. Italian).

the ‘stress language’ group, since they exhibit characteristics similar to the prosodic system of Spanish.

The second main outcome of this work, based on data collected over the years by a number of scholars, is that the features listed above, that characterize the t-type pitch-accent prosodic prototype, are to some extent independent from one another. Several varieties of Basque, in fact, present *intermediate situations between T-type pitch-accent and Spanish-like stress* and *a typology in terms of focal types [...] agrees better with the facts* (Hualde et al., 2002 p. 578).

This conclusion is in line with some of my own data in which the role of pitch in the identification of focus appears to be marginal with respect to other prosodic features.

In the following section I will present some of the semi-spontaneous structures produced by my informants which point to an analysis in terms of general intensity and prosodic prominence, in particular, in narrow focus structures.

4.1. The prosody of focus in Basque

4.1.1. Some preliminaries

The data I collected have been elicited in speakers of the standard variety of *Euskara Batua* ‘unified Basque’, however, all the speakers live in the region of Bizkaia in the north-west of the Basque Country. Thus, it is reasonable to think that, as far as prosodic structure is concerned, the influence of the variety spoken in the area -- the Northern Bizkaian dialect, analysed in Hualde et Al. (2002) -- could affect the prosodic realization of the constructions I elicited.

As I pointed out in the previous chapter, the data collection that I present in this thesis should be considered as a preliminary investigation, for it has been conducted in an informal way in un-controlled environments. The structures have been collected with no direct contact between me and the participants who have been recorded with their consent, over the PC during video-calls or in person by another native speaker of Basque who helped me with the translation of the tests. The prosodic analysis has been carried out using the software Praat.⁶⁸

Not every structure has been recorded since part of the test was aimed to investigate the role of syntax independently from the prosodic realization of the sentence. Thus, certain structures that I have presented in the previous chapters have not been analysed from the prosodic point of

⁶⁸ Boersma, Paul (2001). Praat, a system for doing phonetics by computer. *Glot International* 5:9/10, 341-345.

view. Nevertheless, the aggregated results and more figures can be found in the appendix of this dissertation.

4.1.2 Information Focus

As I pointed out in chapter 3, the focalized constituent in Basque necessarily bears main sentence stress, defined as a pitch accent in A. Elordieta (2001) and Arregi (2003). However, considering that stress seems to be a too vague definition, according to Roach (2009), it can be argued that there are different prosodic features that co-occur in identifying a constituent as an instance of focus or, in general, for it to convey an informationally relevant role in the structure. Consider the sentence in (1) which is the description of a cartoon showing a boy giving a kiss to a girl, that the speaker saw on the screen of his/her computer:⁶⁹

1. Mutilak muxua eman diola neskatillari
Boy.ERG kiss-det.ABS give.PRF aux-compl.3SG.PRS little-girl.DAT
'The boy gave a kiss to the little girl'

In this sentence, the object has an informational focus reading while the dative constituent appears to occupy a rightward position, modifying the canonical S IO O V order. It would be expected that the main stress in the sentence would fall on the object and everything that follows to be un-stressed. However, figure 1 provides a different configuration:

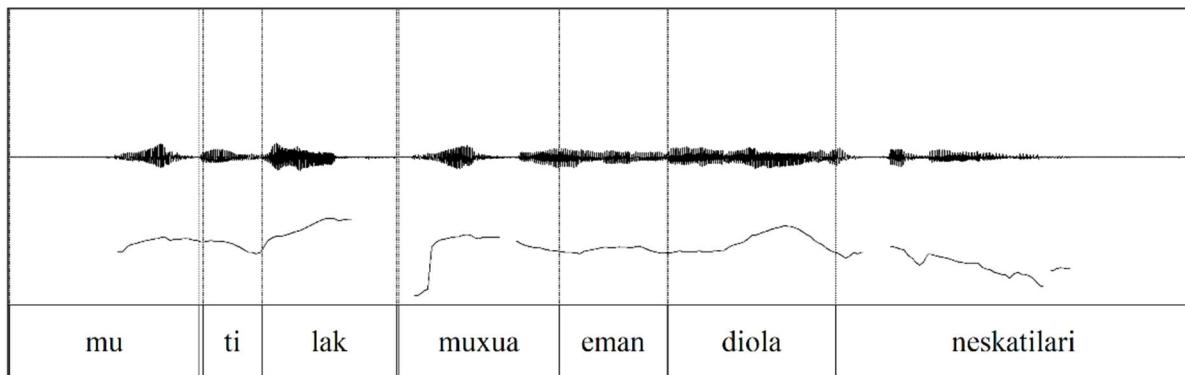


Figure 1 _zer gertatu da? 'what happened?'

⁶⁹ The presence of the complementizer can be explained as a semi-ellipsis of the sentence '(what happen is) that a boy gave a kiss to a girl'. This is a structure which have been used by two speakers when answering to the wide-focus *wh*-question 'what happened'.

First of all, the highest pitch in the sentence falls on the subject, in particular on the ergative marker *mutilAK* ‘the boy’, while the second highest pitch corresponds to the complementizer, which is the suffix *-la* ‘that’. The dative-marked constituent is completely unaccented.

Analysing the prosodic structure of (1), it can be noticed that it is formed by three prosodic constituents: *mutilak* ‘the boy-ergative’; *muxua eman diola* ‘gave a kiss’; *neskatilari* ‘little girl-dative’. A long pause follows the subject and a shorter one follows the verbal complex.

According to Hualde and al. (2002), one of the features of the prosodic ‘T-type’ that I listed in the previous section, is the presence of a *non-accentual phrase-initial rise %LH*, of the same type of the one present in fig. 1. The pitch accent on the complementizer, can result from an accurate pronunciation of the sentence, in line with Büring’s (2016) claim that there can be more than one stress in a single prosodic phrase. The reasons for a distribution of PAs different than expected could be several and a full discussion would lead us beside the scope of this dissertation. For the time being, I will consider the intonational contour of (1) as the product of a carefully pronounced -- and artificial -- realization which the speaker produced in order to make the verb and its arguments clear for a non-native speaker.⁷⁰

It is uncommon for functional elements to be stressed, hence, given that only an informational reason could justify this distribution, I will not consider (1) as a completely unmarked sentence. However, it has been included in the analysis since this structure shows that the focalized constituent does not necessarily bear the highest prominence in the sentence, in particular when the structure is marked for information purposes. The pre-verbal stress has different phonological features with respect to the other two accents, and it can be included in the definition of ‘focal accent’ provided by Hualde et al. (1994). A partial generalization could be that focus is marked by a specific type of accent and not by a general stress.

The same speaker produced similar results describing different pictures with the same kind of event: a woman who gives a boy some money (2) and a man who gives a gift to a girl (3):

2. Emakumeak # dirua # eman diola gizonari
woman-det.ERG money-det.ABS aux-compl.3SGR.PRS man-det.DAT
3. Gizonak # oparia eman diola emakumeari
Man-det.ERG gift.ABS aux-compl.3SGR.PRS woman-det.DAT

⁷⁰ The prominence on the last syllable of the prosodic words identified in (1) and in other examples in this section is predicted by the so-called ‘Hammock principle’ formulated as follow in Van Zonneveld 1985): *syllables at the edges of prosodic words are stressed*.

In (2) a break appears after the subject and the object, while in (3) a break occurs after the subject. In the three structures the pre-verbal element bears a PA, but in none of them is the highest one in the sentence. The dative-DP is de-accented both in (2) and in (3).⁷¹

In chapter 2 it has been observed that information focus can be easily elicited via a simple *wh*-question. This is the case of the following sentences, which are both answers to the same question: *nor ikusi du Jonek?* ‘who (absolutive) saw Jon (ergative)’, that is ‘who did Jon see?’, where the correct alternative that needs to be inserted is the object-DP. In (4) the constituents are ordered following the canonical SOV and the main sentence stress falls, as predicted, on the object *Miren*:

4. Jonek Miren ikusi du
 Jon.ERG Miren.ABS see.PRF aux.3SG.PRS
 ‘Jon saw Miren’

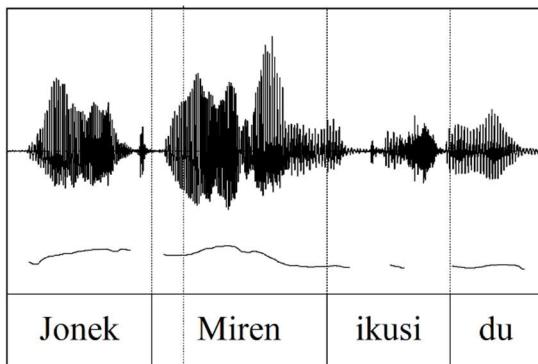


Figure 2 ‘Jon saw Miren’

The sentence in (5) exhibits the apparent fronted order in which the ‘focus cluster’ formed by the object and the verbal complex appears in sentence initial position and the subject surfaces in a rightmost position:

5. Miren ikusi du Jonek
 Miren.ABS see.PRF aux3SG.PRS Jon.ERG
 ‘Jon saw Miren’

⁷¹ In point of facts, another speaker produced the same order in describing the picture. Both the speakers employed the canonical S IO O V order when asked to answer the question ‘what happened?’ with respect of a given context (read on the screen).

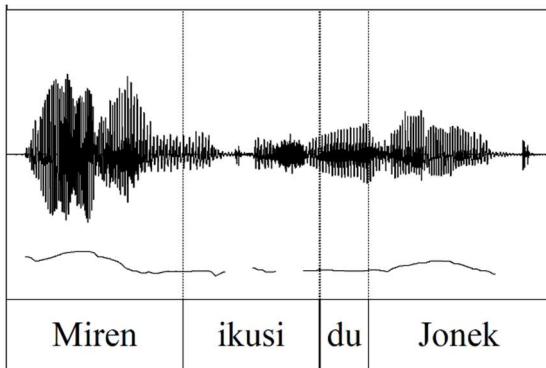


Figure 3 ‘Jon saw Miren’

The object bears the main sentence stress, but the subject does not appear to be de-accented. Arguably, the different intonational contours of the two subjects depend on their position in the sentence, that is, on the overall prosodic structure which, consequently, cannot be considered as affected by the linear word order.

In sum, the prediction concerning the position of main sentence stress is met when a narrow focus reading is active and there is no apparent difference between the prosodic structures of sentences with SOV and OVS order. The pre-verbal position of a constituent seems to be sufficient for it to be interpreted as an information focus.

In the next section, I investigate the prosodic realization of the other types of focus introduced in chapter 3.

4.2 Other types of focus

4.2.1 Multiple information foci

The following is the representation of the answer to the multiple-*wh*-question *nork nori zer eman zion?* ‘who has bought what to whom’ which is realized with an intonational break after the first two *wh*-elements. The answer respects the same order -- which is the canonical [S IO O V] one – and the same prosodic structure, of the *wh*-question (6):⁷²

6. Jonek Mireni # muxu bat eman zion
 Jon.ERG Miren.DAT kiss one.ABS give.PRT aux.3SG.PST
 ‘Jon gave Miren a kiss’

⁷² The question has been pronounced by a native speaker who was instructed not to highlight any constituent in particular. The linear order and the intonation contour could be, however, responsible for a possible ‘syntactic priming’ or ‘prosodic priming’ in the speaker.

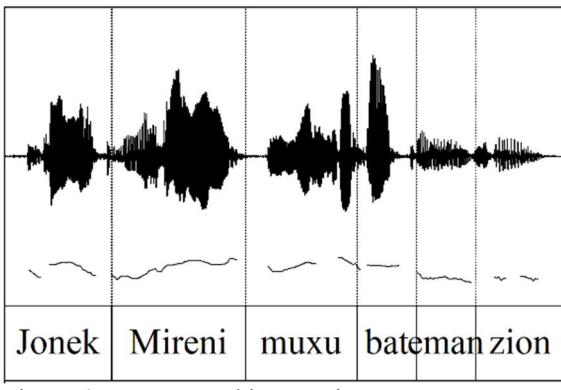


Figure 4: ‘Jon gave a kiss to Miren’

In this construction, the pitch contour does not show any particular PA and the three *foci* are grouped into two prosodic constituents formed by the two NPs (ergative and dative) [Jonek; Mireni] and by the DP (absolutive) [muxu bat], the latter pronounced with no interruption before the verbal complex. However, figure 4 shows that a certain prominence is assigned to the object-DP *muxu bat* ‘a kiss’. This is in line with the claims in Jeong (2003) that I discussed in the previous chapter, according to which the ‘fronted’ *foci* are instances of Topic and, consequently, exhibit a different prosodic contour and, once ordered, are treated as a single prosodic object. The intonational contour is characterized by a rising H tone on the dative NP, that is at the rightward portion of the first prosodic constituent.

4.2.2 Multiple-corrective-focus

The following is an instance of multiple corrective focus in which the speaker is asked to correct the question *Anek Eiderri liburua eman zion?* ‘Ane gave a book to Miren’ in which all the arguments are corrected, with respect of the provided context:⁷³

7. (ez,) Jonek Mireni # muxu bat eman zion
Not Jon.ERG Miren.DAT kiss one.ABS give.PRF aux.3SG.PST
(‘No,) it was JON who gave MIREN a KISS’

⁷³ The context is the same one used to elicit information multiple focus structures that is ‘Jon gave Miren a Kiss’. The speakers have been told to imagine themselves in a situation in which they cannot properly hear what the other person said.

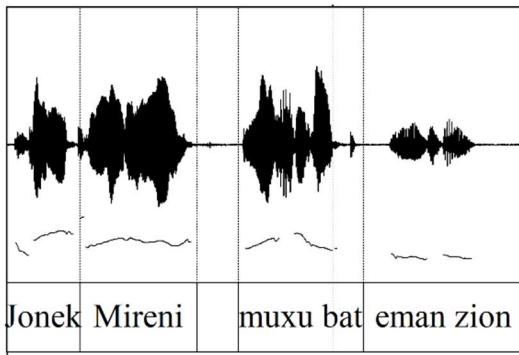


Figure 5: ‘it was JON who gave MIREN a KISS’

No significant difference, neither in the intensity nor in the pitch contour, seems to arise from the point of view of prominence, with respect of the multiple information foci in (6). However, figure 5, shows that a longer pause separates the [ergative + dative] prosodic constituent and the absolute, object constituent. In particular, the lengthening of the dative *Miren* corresponds to a rising intonation, resulting in an intonational break immediately after it. The verbal complex is de-accented as predicted by Büring (2016), since it follows the last pitch accent in the focus domain.

4.2.3 Mirative constructions

Figure 6, is the representation of the mirative structure I analysed in the previous chapter, which I recall here as (8):

8. Anek ez du bada milioi bat irabatzi loterian
 Ane.ERG NEG aux.3SG.PRS COND million one.ABS win.PRF lottery.LOC
 ‘Ane won a million with the lottery!’

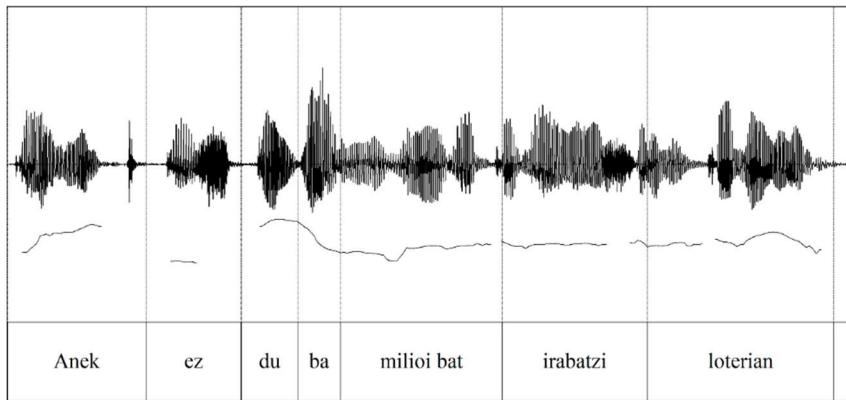


Figure 6: ‘Ane won a million with the lottery!’

The highest pitch falls on *ez du ba*, the pragmatic marker denoting surprise, and not on the object, as expected for the focalized element. An intonational break follows the subject and the rightmost elements *loterian* ‘at-the-lottery’ is not de-accented. The prosodic structure of the sentence is characterized by a final HL% contour which is typical of interrogative constructions. I suggest that the informational content the speaker wants to convey is related to her/his surprise about the event. Considering the hypothesis of a low left periphery of the clause that I have presented in the previous chapter, it seems reasonable to think that this kind of focus is marked by means of two co-occurring devices: a syntactic position that hosts the focalized element and a focal accent on the element denoting surprise about the event, i.e. the espletive negation.

4.2.4 Corrective focus

In the previous chapter I pointed out that, in order to have a focus reading on the participle, a number of strategies can be used, mainly depending on diatopical factors. Among the others, the example that I recall here is characterized by not using any morphological or syntactic device, for it does not employ neither the pre-verbal particle *ba-* nor the light verb *egin* ‘to do’ (9). In other words, only a phonological device is responsible for the focus reading on the participle:

9. Jonek kamiseta EMAN zion
Jon.ERG shirt.ABS give.PRF aux.3SG.PST
'Jon GAVE a shirt to Miren (he didn't sell it)'

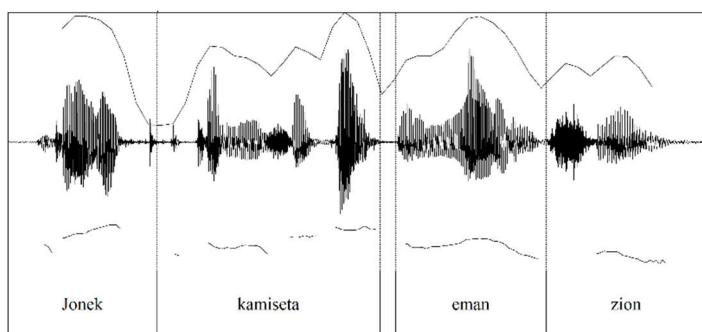


Figure 7: 'Jon GAVE a shirt to Miren'

In figure 7, it can be noticed that a brief pause is present right before the participle. Moreover, the lexical verb does not bear a pitch accent, but it is pronounced with more emphasis: the

phonemes are lengthened, and the intensity contour, visible in the higher portion of the picture, specifically increases in connection with the participle.⁷⁴

I will analyse these data in section 4.4, taking into account other languages characterized by intensity to highlight specific elements as informationally relevant.

4.2.5. *In Sum*

To summarize the first part of this chapter, the analysis of the prosodic realization of focus in Basque reveals that there is a strict correlation between informationally prominent elements and phonological prominence. However, a general definition of this phenomena as ‘stress’ cannot capture the variation in meaning that focus-constructions convey. On one hand, the term ‘focal accent’ seems to be appropriate to describe the intonational contour of focalized constituents in Basque. On the other, the general distribution of pauses – I use the term ‘intonational breaks’ – seems to play a role in the identification of foci, in particular when a correction or multiple-focalization is involved. Focus typology seems also to affect the intensity contour of the focalized elements which changes when the semantic value of the focus is not merely the ‘new information’ one.

Before going any further, I introduce in the next section the solutions that have been proposed to account for the problem of the representation in syntax of phonological features. In particular, concerning the way information is mapped at PF from the syntactic structure.

4.3 The syntax-phonology interface

4.3.1 *Direct reference theory*

The information encoded in syntax must be mapped at PF in order to be interpreted and uttered in a way which is appropriate to the intended meaning.

The first attempt to account for this issue within the frame of Generative Grammar is due to Chomsky and Halle (1968). In this seminal work, they propose that, in order to produce the phonetic structure of a sentence, the syntactic component assigns a ‘surface structure’ to which

⁷⁴ Intensity is a physical property of sounds, that depends on the amount of energy that is consumed to produce a sound. Contrary to the pitch, which is an auditory sensation, intensity is correlated to the amplitude and the frequency of the sound waves produced and there is a close relationship between perceived loudness and physically measurable intensity (Roach, 2009).

the phonetic component has direct access. This approach, baptised ‘boundary theory’ in Elordieta (2008), will evolve in the so-called ‘Direct Reference Theory’ (DRT).⁷⁵

A first generalization, in (10), entails the idea that boundaries are inserted between strings headed by a major lexical category:

10. *The boundary # is automatically inserted at the beginning and end of every string dominated by a major category, i.e., by one of the lexical categories ‘noun’, ‘verb’, ‘adjective’ or by a category such as ‘sentence’, ‘noun phrase’, ‘verb phrase’, which dominates a lexical category.* (Chomsky and Halle, 1968, p.366)

In other words, a boundary # is inserted at the right and at the left of every lexical item, as well as of their maximal projections. Thus, the sentence *the book was in an unlikely place* will have the following surface structure:

11. [s # [NP # [D the]D [N # book #]N #]NP [VP # was [PP # [P in]P [NP # [D an]D [A # un [A #likely #]A #]A [N # place #]N #]NP #]PP #]VP #]S

It is also claimed that a phonological word is a constituent with the following form: [# W #], and that the phrase is preceded and followed by boundaries and is labelled via brackets. Consequently, the sentence above is formed by three (phonological) words (12):⁷⁶

12. a) [# [the]D [#book#]N #]NP
b) [# [was]pA [in]pA # [an]D #[un]A # [likely]A #]AP
c) [# [place]N #]NP Chomsky and Halle (1968) [121], adapted

Therefore, the generalization they propose regarding the syntax-phonology interface is that syntactic constituents and phonological constituents do not share the same form, for instance, in structures like the ones in (13) where *the intonational structure (13b) of the utterance does not correspond to the surface structure (13a)*. (Chomsky and Halle, 372):

⁷⁵ Elordieta (2008) notes that the idea of a straightforward isomorphism between the syntactic and the phonological structure, however, has never been proposed by any of the proponent of the DRT.

⁷⁶ Note that, following Chomsky and Halle (1968), elements such as *was* and *in* are treated as proclitic to the adverbs *unlikely*.

13. a) [This is [the cat that caught [the rat that stole [the cheese]]]]

b) [This is the cat] [that caught the rat] [that stole the cheese]

Chomsky and Halle (1968) [124], adapted

This has been claimed to be the result of some form of ‘performance rules’, i.e., readjustments at PF level.

Selkirk (1972) elaborates on this theory, claiming that the boundaries identified by Chomsky and Halle, are fundamental to identify the place of application of external sandhi rules, that is, changes occurring at the phrase level. Rotenberg (1978) and, within the GB approach, Kaisse (1985), claim that boundaries are superfluous in the surface structure of a sentence and that the phenomena analysed in Selkirk (1972) could be better explained in terms of C-command and edge relations.⁷⁷

Rizzi and Savoia (1993), analysing the ‘u-propagation’ in southern Italian dialects, propose that it is necessary to separate lexical categories from functional categories, a distinction that will be used by several proposals of the DRT. They advocate for a model of phonological mapping in terms of government around four main parameters, reduced to 3 in Manzini and Savoia (2016): A governs B in the following configurations (i) as a functional head (F-gov); (ii) in an agreement configuration (Agr-gov); (iii) in a mutual government (M-gov).

4.3.2 Prosodic Hierarchy Theory

Another theoretical line in the investigation of the relations between syntax and prosody is the so-called ‘Prosodic Hierarchy Theory’ (PHT). The basic claims have been postulated in Selkirk (1978) and Nespor and Vogel (1986) in which it is stated that the prosodic structure is formed by a finite set of ‘prosodic constituents’ which represents the domain of application of phonological rules and phonetic processes. The organization of the prosodic constituents follows non-phonological rules, i.e., syntactic ones, but the structure that the algorithm generates is not isomorphic with the syntactic structure, that is, the phonological component has no direct access to the syntactic structure. Within this theory, Büring (2016) elaborates his theory of focus and of the distribution of stress that I introduced in chapter 2. According to

⁷⁷ To explain the phonological phenomenon of French *Liaison*, Rotenberg (1978) formulates the following rule: *Liaison may apply between two words a and b if b ends the constituent that contains a (or if a is a non-lexical item)* which is revised in term of C-command rules in Kaisse (1985): *Liaison applies between two words a and b where b c-commands a* (rules adapted by Elordieta, (2008 p. 222)).

these works, the prosodic structure and the syntactic one, are in a sort of parallel organization, independent from one another.

4.3.3 Morpho-syntactic feature chains

According to G. Elordieta (1997; 2008), the process of Vowel assimilation (VA) – which is active in colloquial speech, between a verb and its inflection -- in Lekeitiko Basque, cannot be explained by any of the approaches listed above. It is in fact *a process that cannot be a lexical rule, since it applies across words, it may apply in non-derived environments, and is an optional rule depending on register and speech rate*. However, *VA is not a post-lexical rule in the classical sense, applying across-the-board, as its context of application is syntactically constrained*. (G. Elordieta, 2008, p. 258). He thus proposes that VA in Basque can be accounted for, within the framework of the Minimalist Program (Chomsky, 1995), as a syntactic operation of feature checking. In particular, he observes that the heads that are involved in feature-checking, are the same affected by VA, that is, D and T that enter in a relation with N and V respectively. Elordieta (2008), claims that these heads create feature chains, i.e., primitive entities responsible for the relations among them. Zubizarreta and Vergnaud (1997) argue that these chains are: a) independent from the phrase structure, b) present at every level of the derivation and c) interpreted at LF and at PF. According to Elordieta (1997, p. 264): *the cohesion of feature chains is represented or made visible in other components of grammar, [...] this syntactic cohesion is reflected in the components of grammar where heads and their features are spelled out*.

The morphemes that fill these heads form phonological constituents but, according to Elordieta (1997; 1999) they are not isomorphic with phonological or prosodic words given that, for instance, a lexical verb and the inflected auxiliary might both be affected by VA, despite being part of different projections. Hence, they are mapped to an intermediate structure, i.e., the ‘Morphological Structure’ (MS) theorized in the framework of Distributed Morphology, and subsequently, mapped into the phonological component.

So far, it is clear that the syntax-prosody interface is a debated issue that leaves several fundamental questions unanswered, specifically regarding the mapping of syntactic information to the prosodic structure.

Nevertheless, an important conclusion seems to be shared by the different approaches: mapping involves multiple steps in which the information provided by the syntactic structure are read at PF and then re-organized in a further level. Beside the morphological structure posited by DM, another possibility is that there is a second level in the mapping, baptized ‘prosody proper’ in

Hinterhölzl and Petrova (2005, p.9), in which syntactic structure is not visible anymore [...] this phrasing is further refined according to general rhythmical and metrical principles.

4.3.4 Phonological items encoded in syntax

Within DRT, an important hypothesis is formulated in Selkirk (2005) who, following Potts (2002; 2003) claims that certain elements that define the intonational phrase are indeed encoded in syntax. In particular, this is the case of the elements that exhibit a very specific intonational contour which has been baptized ‘comma intonation’, i.e., the *comma expressions* (Selkirk, 2005 p.4). A prototypical example of these structures is in (14), a non-restrictive relative named ‘supplementary’ in Potts (2002):

14. The Romans, who arrived before one hundred AD, found a land of wooded hills.

Selkirk, 2005 [5]

According to Selkirk (2005, p.3) *There are in effect two assertions made by such a sentence: the Romans found a land of wooded hills and they arrived before 100 AD*. Compare (14) and (15) in which the lexical material is the same, but with the latter lacking the comma intonation:

15. The Romans who arrived before one hundred AD found a land of wooded hills.

Selkirk, 2005 [6]

In this case, *who arrived before one hundred AD* is interpreted as restrictive, that is, only the romans who arrived before one hundred AD found a land of wooded hills. In other words, *if no Romans arrived before 100 AD, the entire sentence lacks a truth value* (Selkirk, 2005, p.4). Previous analyses had considered this kind of structures as ‘external’ to the sentence-structure and Potts (2003) considers them as adjuncts that bear a feature [+ comma]. According to Selkirk (2005), this feature is read at the interface with PF and it is responsible for the peculiar intonations of comma expressions.

From both a prosodic and a structural point of view, these constructions fall into the definition of ‘parenthetical’ provided in Dehé and Kavalova (2007) according to which a parenthetical is an expression linearly ordered with respect to a host sentence, but structurally independent from it. It is claimed to interrupt the prosodic flow since it introduces intonational breaks and an intonation different from the one of the host sentence, i.e. parentheticals are characterized by

the comma intonation. According to Dehé and Kovalova (2007), however, they do not interrupt the prosodic flow, given that they rather possess an independent prosodic contour.⁷⁸

Giorgi (2011, and subsequent works) advocates that the comma intonation is already visible in syntax, for it projects a phrase named *K* and dubbed as a prosody-oriented phrase which is read at PF. These heads project phrases that host parentheticals, which, as shown above, share the properties of the non-restrictive relative clauses investigated in Selkirk (2005). Giorgi (2011; 2015a; 2015b; 2016) argues that this configuration can explain the distribution and the properties of ‘free indirect discourse’ (FI, 16) and ‘clitic left dislocation’ (CLLD, 17) among others:

16. [KP **K** [Winston thought [KP **K** [CP The new ration did not start till tomorrow and he had only four cigarettes left]]]] Giorgi (2016), [61]

17. [KP A Gianni **K** [IP Maria gli ha dato un bellissimo regalo]]
to Gianni Maria him has given a wonderful present
'Maria gave a wonderful present to Gianni-top' Giorgi (2016), [64]

Consider the CLLD in (16), a structure in which a dative constituent appears on the left of the clause but, unlike Focus, is not part of the CP portion of the sentence as hypothesised in Rizzi (1997, and subsequent works). In fact, it appears on the left of the subject, but it is not fully integrated with the sentence, for the special properties regarding distribution and semantic values of the parentheticals. Consequently, according to Giorgi’s proposal *a sentence is constituted by the traditional syntactic components plus an extra-layer on the left, hosting material connected to the sentence, but not really part of it, due to the nature of the heads projecting the relevant phrases.* (Giorgi, 2016 p.19). The ‘nature’ of the head is prosodic, and it is thus present in syntax but interpreted at the interface with PF.

From a theoretical point of view, the proposal arises the crucial question of whether there are other instances of prosody-oriented heads. If it is the case, can they be hosted in a leftward position of the low periphery of the clause as well? Further studies might take into account the prosodic properties of the constituents that appear in this portion of the clause and their behaviour with respect of the other elements in the sentence. If that is the case, it could be plausible to think that those prosodic features could indeed project phrases interpretable at PF.

⁷⁸ See the contributions in Dehé and Kovalova (2007) for an overview on parentheticals from different perspectives.

As I suggested in chapter 3, arguably, the periphery of each phase could have the same structure and consequently, it could be formed by an extra-layer that hosts the information about the speaker's beliefs towards the sentence (Belletti, 2004; Giorgi, 2012; Poletto, 2012).

In the next section I analyse the structure introduced in 4.1 in order to investigate the way the syntactic information is mapped at the interface with the prosodic structure.

4.4 Syntax-prosody interface in Basque focus structures

I recall here some of the features that can be identified analysing the Basque focus constructions presented in 4.1:

- i. Intonational break preceding the focalized constituent;
- ii. Only one constituent in preverbal position, part of the same prosodic phrase of the verbal element, regardless of the number of *foci* in the sentence;
- iii. Prosodic prominence of the informationally relevant elements according to the speaker, that is, not necessarily *foci*;
- iv. General prosodic prominence realized by means of focal accent and/or increased intensity.

As I suggested in chapter 3, sentence stress cannot be the only device to identify focus, as shown by the fact that *foci* seem to be defined both by their syntactic distribution and by a prosodic prominence, being it a pitch accent or an increased intensity contour. Moreover, the overall prosodic structure of the sentence appears to be affected by focus typology for it changes according to the information content that the speaker wants to convey.

Féry et al. (2016) run several experiments, similar to the one I used with Basque speakers, to elicit focus constructions in Hindi. The results show that focus in this language is not marked by clear acoustic correlates such as the pitch accent typically found in languages like English, German or Italian. Rather: *in Hindi, only a small increase of pitch height could be measured and a moderate post-focal compression and there is a consistent increase in intensity in the focused constituent* (Féry et al. 2016, p.317). These findings are similar to the ones I highlighted for Basque and represent a result in line with the hypothesis in Hualde et al. (2002) introduced at the beginning of this chapter. The proposal for a less clear-cut categorization of languages in term of prosodic features can be applied to Basque and, arguably, to many languages that fail to fall into a defined category in term of stress and tone accentuation. The same degree of variation at word and/or phrase level regarding the prosodic properties exhibited by the

languages I listed in the previous sections -- western-varieties of Basque, Tokyo Japanese and Hindi – has been investigated in several languages. In particular: Cantonese (Hyman, 2005); Palenquero, a Spanish-based creole spoken in Colombia (Hualde, 2006); Japanese (Ito and Mester, 2009) and it has been claimed that a diachronic change in the tonal system has been undergone by a number of words derived from Ancient Greek (Hualde, 2006) and Old French (Horne, 1991).⁷⁹

A careful analysis of the prosodic properties of Basque focus structures cannot be included in the present dissertation for lack of space and relevant data. However, it is important to observe that a differentiation in exclusively stress-accented and exclusively pitch-accented languages is not appropriate to account for certain prosodic features of focus constructions.

Leaving aside the role of intensity in the identification of focus in Basque, I will now consider the data presented in 4.1, taking into account in particular the distribution of the ‘pauses’ that break the prosodic flow in certain structures. It can be observed a tendency to single out the pre-verbal element of a sentence by means of a pause that precedes it. Consider the example in (6) reported here as (18):

18. Jonek Mireni # muxu bat eman zion
 Jon.ERG Miren.DAT kiss one.ABS give.PRF aux.3SG.PST
 ‘It was Jon who gave Miren a kiss’

The example above is an instance of multiple information focus which represents the answer to the *wh*-question in (19):

19. Nork nori # zer eman zion?
 who.ERG who.DAT what.ABS give.PRF aux.3SG.PST
 ‘WHO gave WHAT to WHOM?’

In both the interrogative structure and in the declarative one, the ergative and the dative elements are part of a single prosodic word, while the absolute (i.e. the object) item is separated from them by an intonational break.⁸⁰

⁷⁹ Some of these studies investigate the global prosodic category of a language, while others focus on specific grammatical items. For the time being, the crucial point is the fact that, from a cross-linguistic perspective, the prosodic typology of the languages of the world is not always reducible to an alternation of tonal and stress languages.

⁸⁰ I use the term ‘intonational break’ for the sake of clarity, however, several phonological and prosodic phenomena co-occur in (18): the dative element is uttered with a particular prosodic contour; its syllables are more articulated than usual and the final vowel [i] is lengthened.

The presence of a pre-focus intonational break is claimed to be responsible for a corrective interpretation of post-verbal constituents in Ortiz de Urbina (2002). According to his proposal, when more than one phrase is present in post verbal position, the focalized constituent surfaces in the right-most position of the structure and it is preceded by the same prosodic break.

Jeong (2003), argues that multiple-*whs* order can be modified, as far as a pause is inserted after the constituent that surfaces in the non-canonical position, while multiple-*foci* surface unordered. The case of (19), however, is interesting, since the intonational break is not related to the linear word order: *Nork > Nori > Nor* ‘who (ERG) > who (DAT) > what (ABS)’ is the unmarked, canonical order of Basque. Thus, it seems reasonable to consider the intonational break as a prosodic tool that marks the leftward boundary of the focalized constituent and not the rightward one of the *wh*-elements. In other words, this break could be responsible for the identification of the prosodic phrase formed by the ‘focus-cluster’ [Foc +(V+AUX)].

The same prosodic structure is visible in the corrective counterpart of (18) which has similar characteristics, except for an intonational break that is perceived as significantly longer before the object and a short break before the participle in (20):

20. Jonek Mireni # muxu bat eman zion
Jon.ERG Miren.DAT kiss one.ABS give.PRF aux.3SG.PST
'It was JON who gave MIREN a KISS'

In the three examples above, the canonical order is respected, however, they cannot be considered instances of wide focus interpretation since each focus (or *wh*) constituent seems to have a specific role in the organization of the information structure of the sentence. A pause appears to be necessary to highlight a specific phrase as more prominent than the others, for reasons that involve the communication choices made by the speaker. If, in the case of focus, a set of alternatives is activated and the appropriate one is inserted in the sentence, other constituents can be emphasized for purely communicative reasons, with no connection to any antecedent.

Consider now the sentences in (5) and (9) repeated here as (21) and (22):

21. Miren ikusi du Jonek
Miren.ABS see.PRF aux3SG.PRS Jon.ERG
'Jon saw Miren'

22. Jonek kamiseta # EMAN zion
 Jon.ERG shirt.ABS give.PRF aux.3SG.PST
 ‘Jon GAVE a shirt to Miren (he didn’t sell it)’

In (22), the participle is singled-out as a (corrective) focus by means of a prosodic strategy, i.e., a special intensity contour and a brief pre-verbal break. On the other hand, in (21) the focalized constituent is stressed (via a pitch accent) and there is no intonational break.

The analysis of the sentences above suggests that the main strategy to mark focus in Basque is a syntactic one, which is sufficient to identify a constituent as marked as ‘new information’, arguably bearing a feature [+ new]. In order to convey the corrective meaning required by the context, it is possible to further highlight the focalized constituent by inserting an intonational break that precedes it.

However, a break in the information flow seems to be strictly necessary only in multiple-*foci* structures. I suggest that the pre-verbal position is only available for a single constituent which bears a [+ new] feature and the other constituents occupy a higher position that could be identified as one of the TopP* in the low-left periphery of the clause or in CP, depending on the basic position of the ‘main’ focus (following Jeong, 2003).

Consider (18): from a semantic point of view, a configuration like this would identify an F-domain formed by the three phrases, marked as focus, that correspond to the three *wh*-constituents (23).

23. [[Jonek]^F [Mireni]^F[muxu bat]^F]_{Foc}
 [Jon.ERG] [Miren.DAT] [kiss one.ABS]

After having checked their feature in [Spec, FP] the subject and the dative move to higher positions (arguably [Spec, TopP] in the vP periphery) to allow the ‘main’ focus to fill that position. The configuration would be the following:

24. [TP [TopP Jonek [Top°]][TopP Mireni [Top°]] [FocP Muxu bat [FocP° eman zion]]]
 Jon.ERG Miren.DAT kiss one give.PRF aux.3SG.PST
 ‘Jon gave a kiss to Miren’

According to Ortiz de Urbina (2002) if more than one constituent surfaces post-verbally, the (corrective) focus interpretation will fall on the last constituent of the sentence:

25. a) Jonek irakurri du periodikoa # ETXEAN.
Jon.ERG read.PRF aux.3SG.PRS newspaper-det home.at
'Jon read the newspaper at home.'

b) ??Jonek irakurri du ETXEAN periodikoa.

Ortiz De Urbina 2002, p.513

According to one of my informants, it is not possible to have a multiple-focus reading if one or more focalised constituents appear post-verbally; in other words, multiple focalization seem to require to surface pre-verbally.

Adopting Büring's (2016) terminology, I consider the ergative and the dative constituent in (24) as 'second occurrence *foci*' that is, elements that are semantically *foci* and that possess a particular intonation contour which is different from the 'de-accented' one of Topics. It could be argued hence, that they do not move to topic positions, but to an extra-layer that contains the information about the relations between the speaker and the sentence in the low left-periphery. Following Giorgi (2010 and subsequent works) I suggest that it contains information about the prosodic realization of these *foci*.

The same information is read off at PF in mirative constructions, which, as shown in (8) repeated here as (26), are characterized by having the pragmatic markers highlighted by prosody:

26. Anek ez du bada milioi bat irabatzi loterian
Ane.ERG NEG aux.3SG.PRS COND million one.ABS win.PRF lottery.LOC
'Ane won a million with the lottery!'

The intonational break would be thus a perceptive consequence of the over-articulation of the last element in the 'second-F-domain'. This particular prosody is a strategy that can be used when the syntactic one is not available. In the case of corrective focalizations of the participle, if no other element is inserted, prosody is the only device that can mark focus. In multiple-*foci* constructions, the syntactic position of focus is occupied by the main focus and thus, the others are singled-out with a prosodic strategy.

4.5. Conclusions

To conclude, it can be argued that *foci* in Basque are marked by a syntactic strategy which is sufficient to provide an interpretation as information focus. The main sentence stress falls indeed on the pre-verbal constituent, as predicted by the prosody-driven focalization theories I

discussed in the previous chapters (A. Elordieta 2001 and Arregi 2003 in particular). However, when correction or mirativity are involved, *foci* change in their intensity contour, rather than in their pitch realization, which is only present in information focus.

In principle, prosody could alone mark focus as shown for multiple *foci* which, however, are somehow backgrounded from an informational point of view with respect to the main focus, marked by its distribution.

Several issues arise from this analysis: first of all, regarding the way to represent in syntax the mechanisms responsible for the choices of the speaker in terms of word order. Arguably, we could assume a feature responsible for the intonational break that singles out a prosodic constituent as ‘informationally relevant’ in the sentence, in particular in multiple-*foci*. More data need to be collected to confirm that the break, and the particular intonation contour that emerges from the structures analysed here is indeed a specific property of this kind of *foci*. If that is the case, it would be plausible to investigate the presence of a position in the low-left periphery that hosts information – and arguably mirative – multiple *foci*, in phrases projected by prosody-oriented heads, similar to the one investigated in Giorgi (2011). This analysis is far from being exhaustive and more experimental studies are needed to reach a sound generalization.

If this proposal is on the right track, it could help solving some issues regarding the linear order of Basque. The syntactic organization of the sentence seems to be sufficient to convey the intended meaning from an informational point of view. However, word-order is highly affected by the choices of the speaker regarding what is relevant in the sentence. Being the main focus identified by a syntactic strategy, a prosodic one might be used to highlight a specific constituent. Further analysis is required in order to possibly identify a specific prosodic contour for these elements. If that is the case, then, it could be argued that the prosodic information is indeed present in syntax and interpreted at PF, for it would bear specific features that can interact with different modules of grammar, that is, they could be organized via independent prosodic rules, active at the interface.

CONCLUSION

In this dissertation I have analysed focus constructions in Basque, in order to investigate the role of focus typology in the distribution of *foci* and in their prosodic features.

The syntactic structure of Basque is still a debated issue, as I have shown in chapter 1, and several problems emerge in every proposal that attempted to account for word order patterns in this language.

I have followed Jayaseelan (2001), who, in the spirit of Kayne (1994) proposes an underlying SVO order for Malayalam, a language that shares some features with Basque. In applying this hypothesis to Basque, I have argued for a right branching structure, in line with previous proposals, e.g., G. Elordieta (1997); Haddican (2006) and Irurtzun (2005; 2016).

As I have suggested in chapter 3, if the hypothesis is on the right track, it could help explaining how information structure affects word-order. In particular, an IP-internal focus position could account for the constraint of having the focalized item left-adjacent to a verbal element. Moreover, it would not be necessary to rely on scrambling or right dislocation to explain word order in Basque.

As far as focus typology is concerned, I have elicited in 5 native speakers a number of structures which were aimed to investigate the strategies employed to produce information, contrastive, corrective and mirative focus. I thus analysed some of the constructions from a syntactic and prosodic point of view.⁸¹

According to my data, corrective narrow *foci* exhibit a large preference for a V2 order, while the distribution of informational narrow *foci* does not show a clear preference:

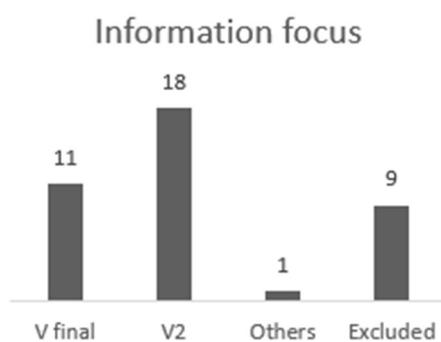


Figure 1

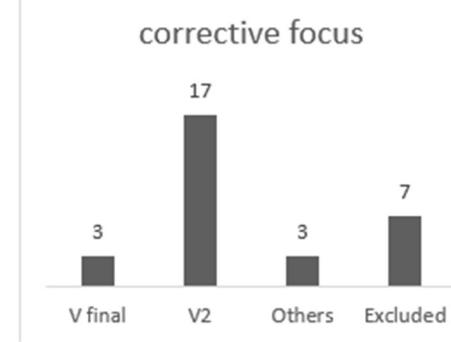


Figure 2

⁸¹ I have followed the definition of focus provided by Büring (2016) and the distinction between corrective and contrastive focus proposed in Bianchi, Bocci and Cruschina (2015; 2016). Mirative focus has been identified in Cruschina (2012) and conveys surprise for an event which is not part of the knowledges of the interlocutors and I argued that is not characterized by being counter-expectational making a comparison with the *surprise questions* analysed in Giorgi (2017).

From a semantic point of view, the main difference between information focus and corrective focus is that the latter needs an antecedent – the target of correction – in order to be felicitously realized.

Consequently, I suggested that there are two positions for focus in Basque: one in CP and one at the left of vP. The former hosts corrective *foci* – attracted there by a [+ contrastive] feature – and the latter hosts *foci* that do not need an antecedent to be interpreted. From the theoretical point of view, the proposal is in line with previous works on a ‘low’ periphery of the clause (Jayaseelan, 2001; Belletti, 2004; Poletto, 2006; Giorgi and Haroutyunian, 2016 among others). In particular, following Giorgi (2016), the v*P periphery can be accounted for in a minimalist perspective, assuming the presence of a left periphery for each phase.

The prosodic analysis carried out in chapter 4 shows that main sentence stress falls indeed on the focalized constituent in information focus constructions. However, it is a general increasing in the intensity contour, rather than a pitch accent, that arises, in line with the classification of Basque as *T-type* language proposed in Hualde and al. (2002). It also emerges the presence of an intonational break before the ‘focus cluster’ – i.e. [focus + verbal complex] – in marked structures such as corrective and multiple *foci*.

Several issues remain open and might be addressed in further research.

First of all, if a universal Specifier – Head – Complement configuration is assumed (in line with Kayne, 1994), the syntactic structure of Basque needs to be investigated to solve the problems that emerge in other similar account, e.g. Irurtzun (2005). Moreover, the precise nature of the functional projections in the low-periphery remains unclear and requires to be investigated further: if we consider it as a layer with the same articulation of the CP-internal one (Rizzi, 1997 and subsequent works), cross-linguistic data could help to identify the role of each projection in the derivation.

The role of prosody in focus structure would benefit of more comprehensive data from the different regions of the Basque Country, considering the influence that the regional varieties play in the prosodic and intonational structure of Basque.

Crucial questions arise from the analysis of focus-phenomena regarding the way to account for the interactions among grammar, external reality and the speaker. The investigation of these elements as part of the syntactic component (cf. Giorgi, 2010), could shed some light on linearization issues unsolved in previous accounts and appears to be fundamental for the investigation of a language such as Basque, in which word order is closely related to the information import of its elements.

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Appendix

1. Information focus

- a) Context: [Today Jon has seen Miren at the park]⁸²

S1	Jonek Miren parkean ikusi duela	<i>S O LOC V AUX</i>
S2	Jonek Miren parkean ikusi du	<i>S O LOC V AUX</i>
S3	Jonek Miren parkean ikusi duela	<i>S O LOC V AUX</i>
S4	Jonek parkean Miren ikusi du	<i>S LOC O V AUX</i>
S5	Gertatu dena Jonek Miren parkean ikusi duela izan da	

Table 1: *Zer gertatu du?* ‘What happened?’

S1	Miren parkean Jonek gaur ikusi du.	O LOC S TEM V AUX
S2	Gaur ikusi du Jonek Miren parkean	TEM V AUX S O LOC
S3	Jonek gaur Miren parkean ikusi du.	S TEM O LOC V AUX
S4	Jonek Miren gaur ikusi du	S O TEM V AUX
S5	Gaur ikusi du Jonek Miren parkean.	TEM V AUX S O LOC

Table 2: *Noiz ikusi du Jonek Miren parkean?* ‘When has Jon seen Miren at the park?’

S1	Miren parkean gaur Jonek ikusi du.	O LOC TEM S V AUX
S2	Jonek ikusi du Miren parkean gaur	S V AUX O LOC TEM
S3	Jonek ikusi du Miren parkean.	S V AUX O LOC
S4	Jonek ikusi du Miren	S V AUX O
S5	Gaur Miren parkean Jonek ikusi du.	TEM O LOC S V AUX

Table 3 : *Nork ikusi du Miren parkean gaur?* ‘Who has seen Miren at the park today?’

S1	Jonek gaur parkean Miren ikusi du.	S TEM LOC O V AUX
S2	Miren ikusi du Jonek parkean gaur	O V AUX S LOC TEM
S3	Jonek Miren ikusi du.	S O V AUX
S4	Miren ikusi du Jonek	O V AUX S
S5	Gaur Jonek parkean Miren ikusi du.	TEM S LOC O V AUX

Table 4 : *Nor ikusi du Jonek parkean gaur?* ‘Who has seen Jon at the park today?’

S1	Gaur Jonek Miren parkean ikusi du.	TEM S O LOC V AUX
S2	Parken ikusi du Jonek Miren gaur	LOC V AUX S O TEM
S3	Parkean ikusi du Jonek Miren.	LOC V AUX S O
S4	Jonek Miren parkean ikusi du	S O LOC V AUX
S5	Gaur Jonek Miren, parkean ikusi du.	TEM S O LOC V AUX

Table 5 : *Non ikusi du Jonek Miren gaur?* ‘Where has Jon seen Miren today?’

⁸² In the tables the verbal complex is marked with **bold** and the new information with *italics*.

Contexts are present in their English translations.

Data which could not be analysed have been inserted in the tables for the sake of clarity.

b) Context: [Today Jon has seen Miren at the park]

S1	Anek eta biok auto berria erosi dugula.	<u>S O V AUX</u>
S2	Anek eta nik auto berri bat erosi dugu	<u>S O V AUX</u>
S3	Anek eta biok auto berria erosi dugu.	<u>S O V AUX</u>
S4	Anek eta biok auto berri bat erosi dugula	<u>S O V AUX</u>
S5	Zuk eta Anek auto Berri bat erosi duzuela gertatu da.	X

Table 6: *Zer gertatu da?* ‘What happened?’

S1	Anek eta biok erosi dugu auto berria.	<u>S V AUX O</u>
S2	Anek eta nik erosi dugu auto berri bat	<u>S V AUX O</u>
S3	Anek eta biok auto berria erosi dugu.	<u>S O V AUX</u>
S4	Anek eta biok erosi dugu auto berri bat	<u>S V AUX O</u>
S5	Auto berri bat zuk eta Anek erosi duzue.	X

Table 7: *Nork erosi du auto berri bat?* ‘Who bought a new car?’

S1	Anek eta biok erosi dugu auto berria.	<u>S2 S1 V AUX O</u>
S2	Nik eta Anek erosi dugu auto berri bat	<u>S1 S2 V AUX O</u>
S3	Anek eta biok erosi dugu kotxe berria.	<u>S2 S1 V AUX O</u>
S4	Anek eta nik erosi dugu auto berri bat	<u>S2 S1 V AUX O</u>
S5	Zuk eta Anek erosi duzue auto berri bat.	X

Table 8: *Zuk eta nork erosi duzue auto berri bat?* ‘You and who, bought a new car?’

S1	Anek eta biok auto berria erosi dugu.	<u>S O V AUX</u>
S2	Auto berri bat erosi dugu Anek eta nik	<u>O V AUX S</u>
S3	Kotxe berria erosi dugu Anek eta biok.	<u>O V AUX S</u>
S4	Auto berri bat erosi dugu	<u>O V AUX</u>
S5	Zuk eta Anek auto berri bat erosi duzue	X

Table 9: *Zer erosi duzue zuk eta Anek?* ‘What have you and Ane bought?’

S1	Anek eta biok auto berria erosi dugu.	X
S2	Auto berria erosi dugu Anek eta nik	X
S3	Auto berria erosi dugu.	X
S4	Auto berria erosi dugu Anek eta nik	X
S5	Zuk eta Anek auto berri bat erosi duzue.	X

Table 10: *Nolako autoa erosi duzue zuk eta Mirenek?* ‘How is the car you and Ane have bought?’

- c) The graphs below show the aggregated data concerning word order preferences in the structures collected above.

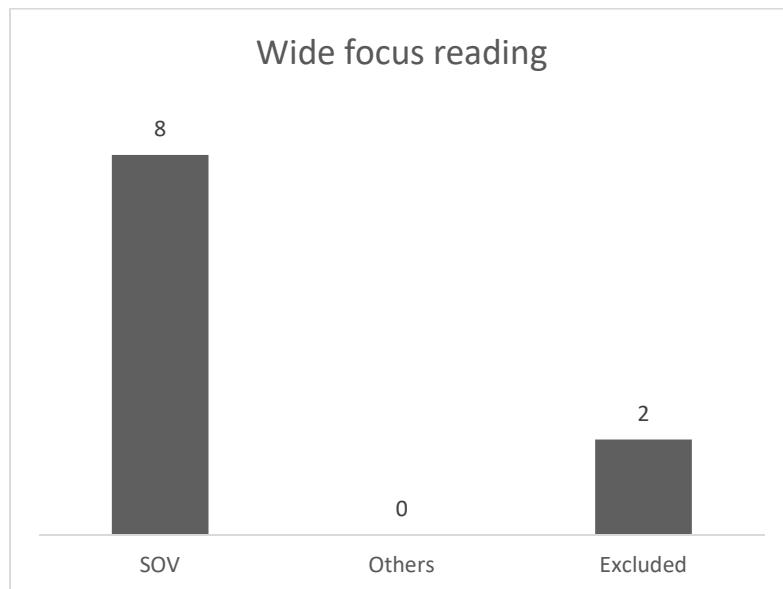


Figure 1: preferred orders in wide focus structures

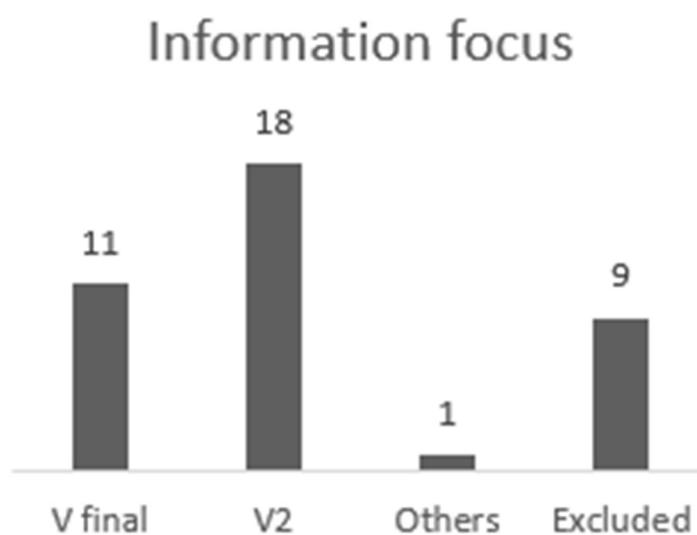


Figure 2: position of the focus cluster [Foc+V]

2. Mirative focus

Context: [Ane won a million with the lottery!]

S1	Anek ez du bada milioi bat irabazi loterian	S NEG AUX COND O V LOC
S2	Badakizu Anek miloi bat irabazi duela loterian	INT S O V AUX-comp LOC
S3	Enteratu al zara Mireni milioi bat euro tokatu zaio loterian	INT MOD V S O V AUX LOC
S4	Aitor pentsatzen dut ez duzula jakingo, baina Anek loterian jokatuta milioi bat irabazi duela kontatzen dizut	X
S5	Aizu Aitor Anek milioi bat euro irabazi dituela loterian	INT S O V AUX-comp LOC

Table 11: *Nola kontatzen diozu Aitorri?* ‘How do you tell Aitor the news?’

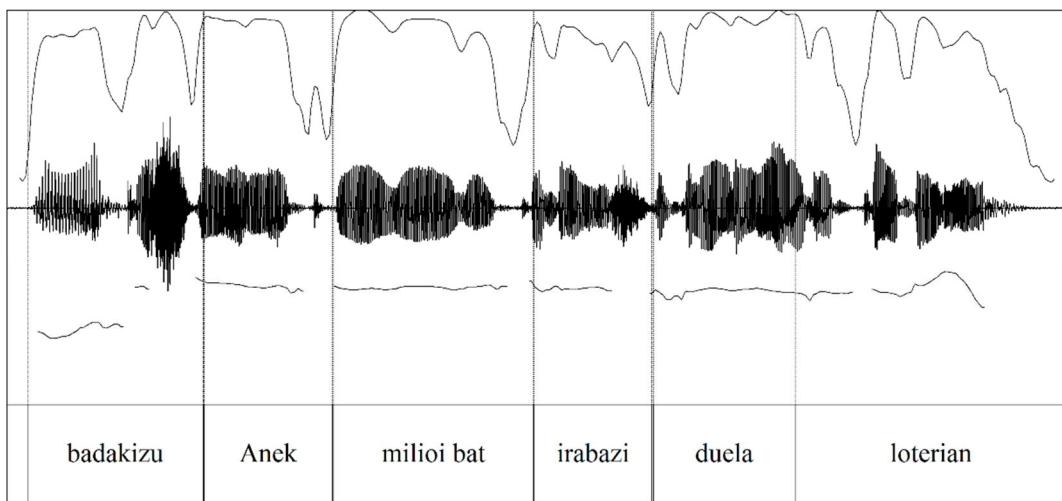


Figure 3: S2 – *Do you know that Ane won a Million with the lottery?!* Pitch and intensity contour

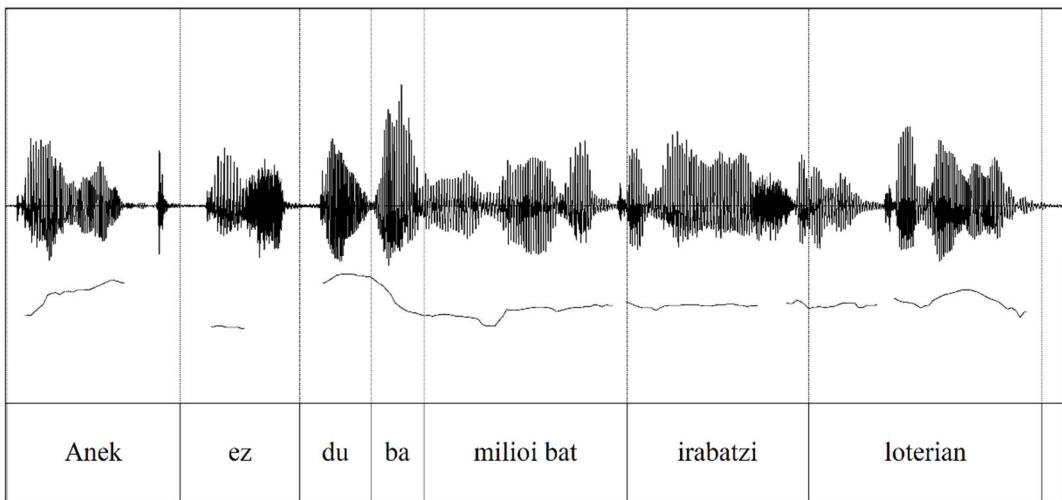


Figure 4: S1 – *Ane won a million with the lottery!* Pitch contour

3. Corrective focus

- a) Context: [Jon gave Miren a red shirt]

S1	Jonek eman zion Mireni kamiseta gorria.	S V AUX O
S2	Jonek eman zion Mireni kamiseta gorria	S V AUX O
S3	Jonek eman zion Mireni kamiseta gorria	S V AUX O
S4	Jonek eman zion Mireni kamiseta gorria	S V AUX O
S5	Jonek	X

I: Eiderrek eman zion Mireni kamiseta gorria.

S1	Jonek Mireni kamiseta eman zion	S IO O V AUX
S2	ez zion kamiseta saldu eman baino	X
S3	Eman egin zion Jonek Mireni kamiseta	V v AUX S IO O
S4	Jonek eman egin zion Mireni kamiseta gorria	S Vv AUX IO O
S5	eman	X

I: Jonek Mireni kamiseta gorria saldu zion.

S1	Kamiseta gorria eman zion Jonek Mireni	O V AUX S IO
S2	Kamiseta gorria eman zion Jonek Mireni	O V AUX S IO
S3	Jonek Mireni kamiseta gorria eman zion	S IO O V AUX
S4	Kamiseta gorria eman zion Jonek	O V AUX S
S5	Kamiseta gorria	X

I: Jonek Mireni kamiseta beltza eman zion.

S1	Mireni eman zion Jonek kamiseta	IO V AUX S O
S2	Jonek Mireni eman zion kamiseta	S IO V AUX O
S3	Mireni eman zion kamiseta Jonek	IO V AUX O S
S4	Mireni eman zion Jonek kamiseta	IO V AUX S O
S5	Mireni	X

I: Jonek Eiderri kamiseta gorria eman zion.

S1	Kamiseta gorria eman zion Jonek Mireni	O V AUX S IO
S2	Kamiseta gorria eman zion Jonek Mireni	O V AUX S IO
S3	Jonek Mireni kamiseta gorria eman zion	S IO O V AUX
S4	Kamiseta gorria eman zion Jonek Mireni	O V AUX S IO
S5	Kamiseta gorria	X

I: Jonek Mireni jaka gorria eman zion.

S1	Kamiseta gorria eman zion Jonek Mireni	O V AUX S IO
S2	Kamiseta gorria eman zion Jonek Mireni	O V AUX S IO
S3	Jonek kamiseta gorria eman zion Mireni	S O V AUX IO
S4	Kamiseta gorria eman zion Jonek Mireni	O V AUX S IO
S5	Kamiseta gorria	X

I: Jonek Mireni jaka beltza eman zion.

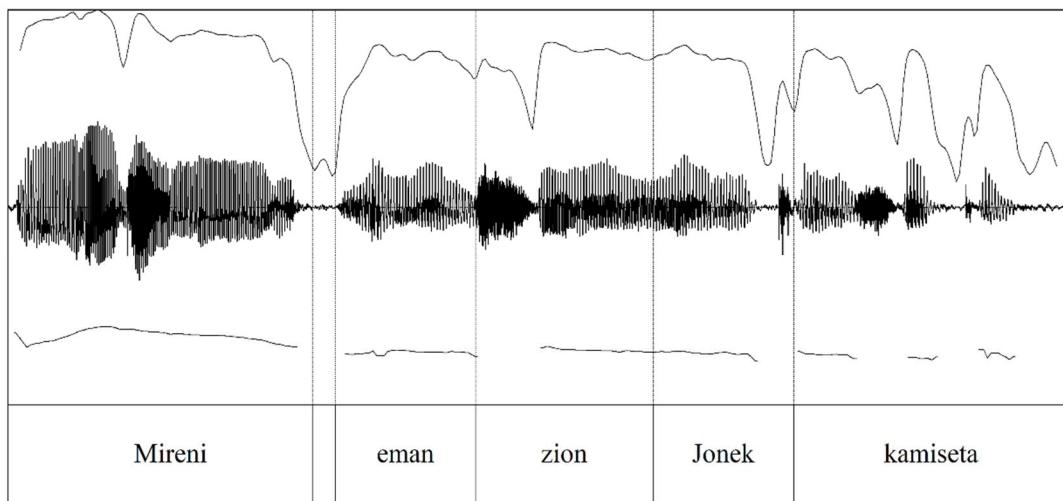


Figure 5 : S1_MIRENI eman zion Jonek kamiseta Pitch and intensity contours

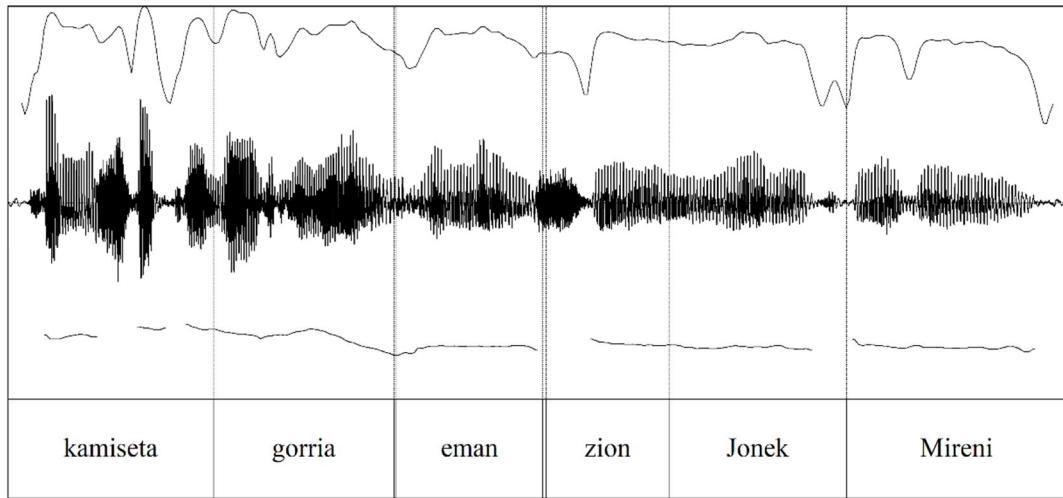


Figure 6 : S1_KAMISETA GORRIA eman zion Jonek Miren Pitch and intensity contours

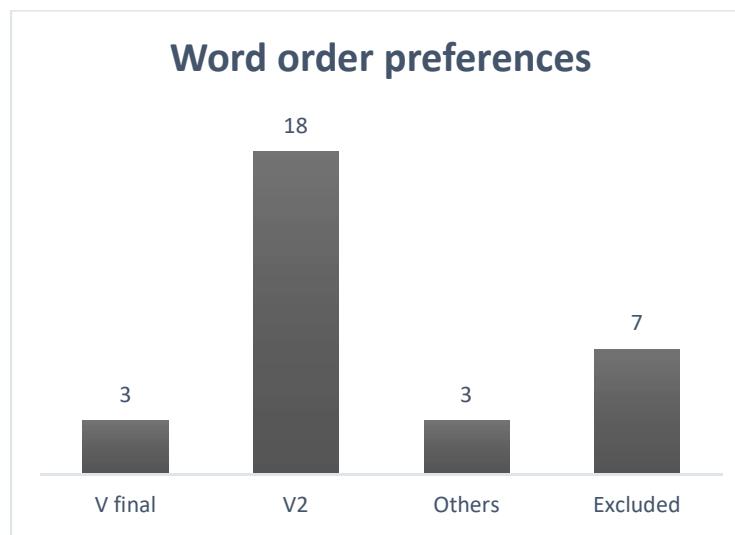


Figure 7: position of the focalized constituent

4. Multiple foci

a) Multiple wh-question : who gave what to whom

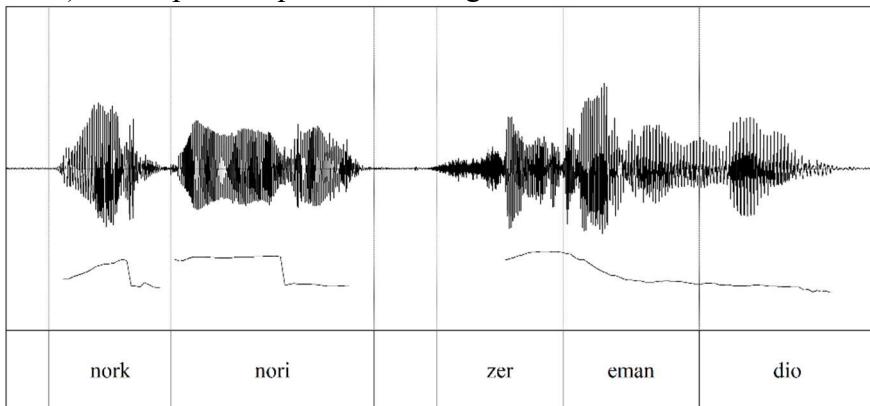


Figure 8 : *who gave what to whom?* Pitch contour

b) Multiple information foci

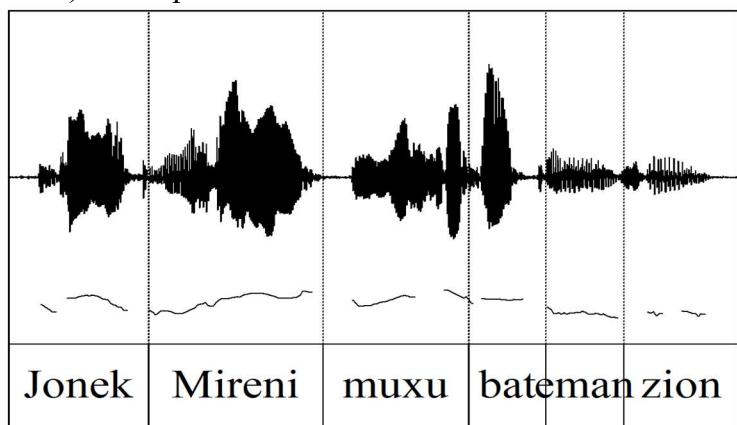


Figure 9: *Jon gave Miren a kiss* Pitch contour

c) Multiple corrective focus

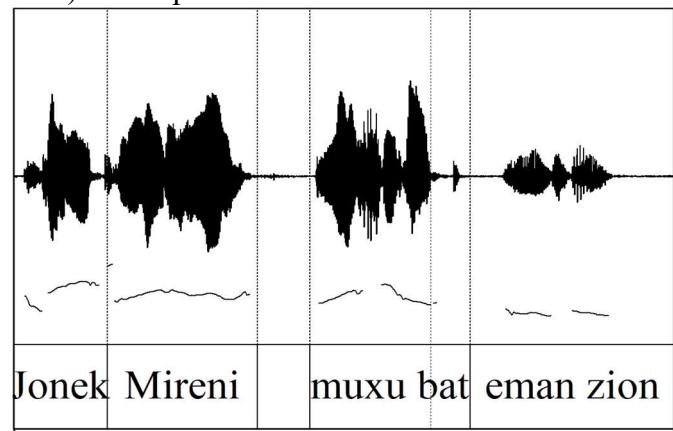


Figure 10: *JON gave MIREN A KISS*