

**Earliness Conditions on EPP-satisfaction: a view from Basque micro-comparative syntax**

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**0. Intro**

The Agree mechanism, as defined by Chomsky (2000), together with the proposal that Merge applies freely (i.e. “it does not operate in order to create a configuration that allows interface-illegitimate features to be checked” –Epstein, Kitahara and Seely, 2014; Chomsky, 2004, 2007, 2008) dispenses with the idea that feature valuing is related in any systematic way with Internal Merge (unlike Chomsky 1995). The Labeling Algorithm (Chomsky 2013), whereby movement is motivated by the need to resolve ambiguous (symmetric) configurations for labeling (an interface requirement), only underlines the lack of connection between the licensing of features and Internal Merge.

The Labeling Algorithm has interesting consequences for classical English EPP (Chomsky, 2013; Epstein, Kitahara and Seely, 2014), in the sense that it provides a motivation for the displacement of the External Argument that does not depend on T. The traditional version of the EPP is a condition that involves T: T requires an overt specifier. This forces us to add some particular attracting feature to T (the EPP feature):

- (1)  $[_{TP} DP T^* \dots (DP) \dots]$

Under the LA, the underlying motivation for the raising of the External Argument is the symmetric structure that Merging the External Argument to vP produces:

- (2)  $[_{XP} EA [_{vP} \dots IA \dots]]$

The EA must move so that the ambiguous configuration in (2) for Minimal Search is dissolved. The target of this movement is TP:

- (3)  $[_{TP} (EA) T [_{XP} (EA) [_{vP} \dots IA \dots]]]$

Internal Merge of EA to TP makes the lower copy invisible for Minimal Search, and therefore XP is labeled as v. EA is frozen in T as both T and EA share a feature. It is this shared feature that labels the structure (say phi-features). Under LA, “Spec-Head agreement” is revived as a means to label the structure and freeze the moved XP in-situ. The labeling issue only arises with Internal Merge to TP, not before. It is compatible with the idea that the phi-features in T have been valued before raising (in fact, this may be required). T is not interested in “attracting” anything, for

labeling purposes or for valuing its features. This motivates a view of the EPP as a derivative concept, one that is related to finding a matching feature between the moved EA and whatever projection it Merges to. Not without problems, see Epstein, Kitahara and Seely (2014; f.13):

- (4) a. There is  $[_{SC} a \text{ man in the room}]$  (SC should not have a label)  
b. There is  $[_{XP} a \text{ man X } [_{SC} \_ \text{ in the room}]]$  (hypothesis: short movement)  
c.  $*\_ \text{ is } [_{XP} a \text{ man X } [_{SC} \_ \text{ in the room}]]$  (but then why?)

**F-related approaches to EPP**

Chomsky (2015) suggests that not all features may be able to label a structure, and that merging a DP or an expletive to TP may be a way to label the structure (Weak T in English, unlike in Romance languages. If so, this is a retreat to a more traditional analysis of the EPP (now under the Labeling Theory). EPP effects (Labeling-motivated operations in LT) are part of the Computational System.

- (5) F-related EPP (part of CS)

To the extent that the EPP is part of the CS, it may have an effect at the CI interface too (Rosengren, 2002). This view can also be extended to analogous EPP effects in V2-languages (Roussou and Roberts’ analysis in terms of Tense dependency, 2001).

**PF-motivated approaches to EPP**

In some languages, such as Icelandic and Faroese (Holmberg, 2000), clauses that lack an overt grammatical subject must have either an expletive or something else in Spec of T. There is no categorial restriction in the kind of thing that can occur there (Holmberg, 2000:446).

- (6) a. *Dat* hefur verið tekin erfið ákvörðun  
EXPL has been taken difficult decision  
“A difficult decision has been taken”  
b. *Tekin* hefur verið \_ erfið ákvörðun

Holmberg (2000:447): “I will argue that the nominal features associated with Finite T should be held apart from the requirement that Spec,TP be overtly filled. In terms of feature theory, two features are involved: one, a feature attracting (features of) a nominal category to I (uD), and the other, a feature that requires filling Spec, IP [with phonological content, i.e. EPP]”. Icelandic and Faroese value uD by Verb Movement to I (V having D-morphology). The EPP is satisfied by any term having a

phonological matrix.

The idea that the EPP could be a phonological requirement has been advanced in English in the context of repair phenomena under ellipsis (Chung, Ladusaw and McCloskey, 1995; Merchant, 2001; van Craenenbroeck and Den Dikken, 2006). Extraction from subjects is impossible in English, but it becomes possible under sluicing (van Craenenbroeck and Den Dikken: 654):

- (7) a. \*Which Marx brother<sub>i</sub> is [a biography of <sub>i</sub>] going to be published this year?  
b. A biography of one of the Marx brothers is going to be published this year. Guess which (Marx brother).

On the assumption that the Subject Condition applies to derived subjects and that there is no ban on extraction from the subject when it is in its base position (*which Max brother was there a good biography of?*), the contrast seems to suggest that the subject does not raise in the elision case. One can draw the conclusion that raising to subject is only obligatory if the landmark position (Finite T) is phonologically realized, and therefore that the movement is phonologically motivated (see also Landau, 2007; Sigurdsson, 2010; Salzmann et al. 2013; McFadden and Sundaresan, 2018). But see Lasnik and Park (2003) for arguments against the idea that the subjects are in their base position in (8a,b), and a different account of the repair. In general, building up an argument in favour of the PF-status of the EPP is difficult in ellipsis, because elision has the property of also repairing island-violations.

In the context of Icelandic Stylistic Fronting (SF), which Holmberg takes to be motivated by PF-considerations, there is nevertheless a certain ordering in the things that may occupy the preverbal position in SF: prominent above all the possible candidates is the subject (Holmberg, 2000:462; 2015), which has both nominal and phonological features, and blocks any other movement:

- (8) a. ad hann var fyrstur ad skora mark  
that he was first to score goal  
“...that he was the first to score a goal”  
b. \*ad hann fyrstur var <sub>i</sub> ad skora mark

Then, there is a hierarchy reminiscent of Minimal Search conditions (Maling, 1980):

- (9) Subject > negation/adverbs > adjective (predicates) > verb/particle

In Holmberg’s system, the phonological matrix of syntactic terms is visible within

the computational system. It may also be the Goal of syntactic probing (copy of the phonological matrix of a Goal raises). This is an extremely powerful option. It is also not clear how the notion of ‘closest’ here compares to what “closest” means for PF computations (adjacency). Also, not clear why a phonological condition should involve the Specifier of a projection (Internal Merge). In all approaches to the EPP I am familiar with, the EPP is defined relative to a head or to the Outer edge of a phrase. The conditions on EPP satisfaction end up being articulated in such a way (EPP as “a feature of F”) that they invest PF with syntactic properties and the CS with PF-ones.

### *The point of the talk*

I will present evidence for complete separation of PF-conditions and syntactic conditions in Basque EPP-repair situations. The kind of configuration that we will be focusing on can be represented as (9), where the gap must be filled with some overt element.

- (10) \*<sub>[XP \_ X...]</sub>

The logic we find in SF-type phenomena is the following: imagine that a term Y (say a subject) cannot be fronted to the Spec of XP. Since the requirement that that position be filled is a PF-requirement, any other element that has a phonological matrix will be able to satisfy (10). A way of interpreting this is that X includes an “EPP-feature”. This feature attracts a PF-matrix and it is “omnivorous”. Under this view, if Spec of X is not filled, the derivation crashes at PF.

What we will see in Basque is the following. Imagine that Spec of XP in (10) cannot be filled in a given derivation. In Basque, the derivation will not crash, and it will not attract any other phonological matrix to XP. It will go on by recruiting (merging) a higher category that attracts a term to its outer edge. The EPP will be satisfied there. We could say that the higher category “inherits” the (unrepaired) EPP condition.

- (11) \*<sub>[YP \_ Y [<sub>XP</sub> X...]]</sub>  
← \*

If we can show that this is the case (without auxiliary processes like head-movement), then the EPP cannot be linked to X (it cannot be a feature of X). It must be an independent condition, one external to the computational system. We will see evidence that the Edge condition in (10) is sensitive to intonational boundaries. The hypothesis that I will explore is that the relation between (10) and (11) must be understood in terms of economy conditions governing the alignment of prosodic and syntactic edges.

Alignment cannot occur without a phonologically realized edge. Prosodic phrasing is sensitive to the presence of XPs in “Specifier positions” because they fix the left boundary of a prosodic constituent. Consider a natural syntactic domain (a Phase) in (12). The fact that the sequence of Fs in (b) are hierarchically arranged entails that there is an optimal move, namely satisfying (10) at the very first F in the hierarchy:

- (12) a. [Domain of Assertion ...[FP XP<sub>PF</sub> F<sub>1</sub>... [IP IP]]] (Optimal)  
b. [Domain of Assertion ...[FP<sub>2</sub> XP<sub>PF</sub> F<sub>2</sub> [FP<sub>1</sub> F<sub>1</sub> ...[IP IP]]]] (Suboptimal)

(12b) is possible, but only when forced (when (12a) is not possible for independent reasons). Basque micro-comparative syntax affords us what I hope is a clear case of repair in terms of (12a,b).

(13) Align as soon as possible Prosodic and Syntactic Edges (Earliness Condition)

Given (a,b)

- a. [Intonational Phrase ...]  
b. [Domain of Assertion F<sub>n</sub>...F<sub>1</sub> [...]]

Optimal alignment:

- a. [Domain of Assertion F<sub>n</sub>... [XP F<sub>1</sub>...]  
b. [iP [PhWord XP]...]

In order to build the argument for that, we need a few background notions about Basque morphosyntax.

## Background notions: Basque finite forms

### 1. Analytic and synthetic verbal forms in Basque

#### 1.1. Analytic forms

Basque verbal predicates typically have an analytic look, as shown in (14a,b). The lexical verb projects into an aspectual category (perfective, imperfective or prospective). Tense and Agreement markers occur in the finite auxiliary. The nature of the auxiliary depends on the type of lexical verb we have: transitive and unergative verbal predicates require the auxiliary \**edun* “have”. Unaccusative ones require *izan* “be”.

- (14) a. Nik zuri liburuak eramán d-i-zki-zu-t (Perfect periphrasis)  
IERG you.DAT books.ABS bring.PARTC T-APPL-3PL-2DAT-1ERG  
“I brought you the books”

- b. Nik zuri liburuak eramaten d-i-zki-zut (Imperfect periphrasis)  
IERG you.DAT books.ABS bring.IMP T-APPL-3PL-2DAT-1ERG  
“I (usually) bring you the books”

- c. Nik zuri liburuak eramango d-i-zki-zut (Prospective p.)  
IERG you.DAT books.ABS bring.PROSP T-APPL-3PL-2DAT-1ERG  
“I will bring you the books”

Basque auxiliaries can be defined by the following descriptive properties:

- They follow the Aspectual Phrase in analytic structures
- They carry Tense/Mood and Agreement affixes
- Their form (cf. *be/have*) depends on the transitivity of the lexical verb (simplifying)

For Haddican (2005), auxiliaries are functional restructuring verbs. Arregi and Nevins (2012) claim that they correspond to the direct lexicalization of C-T.

#### 1.2. Synthetic forms

##### 1.2.1. V-to-T

A small set of Basque lexical verbs, called “synthetic verbs”, can still directly inflect for Tense and agreement:

- (15) a. Ba-n-a-tor AFF-1S.ABS-PRESENT-ROOT  
“I am coming”  
b. Ba-n-e-tor-en AFF-1S.ABS-PAST-ROOT-PAST  
“I was coming”

Laka's standard analysis (1990) of synthetic verbs involves direct head-raising of a bound lexical root to inflection. We will come back to this later.

- (16) [TP/AgP root+T/Agf [VP (root)...]]

##### 1.2.2. Defective aspect

As shown in the contrast between (17a) and (17b) the main difference between the periphrastic and the synthetic paradigms is in the presence of morphologically expressed aspect. Synthetic verbs have no overt aspect marker, and they are obligatorily interpreted as a special case of imperfective (Albizu, 2001):

- (17) a. Jon **etorri** da (Change of State)  
Jon.ABS come.PARTC is  
"Jon has come"
- b. Jon **ba-da-tor** (Ongoing)  
Jon.ABS AFF-IS.ABS.PRESENT.ROOT  
"Jon is coming"

V-to-T is possible if aspect is not (morphologically) realized (Laka, 1990; Bjorkman, 2011; Berro, 2015). The configuration reminds *Morphological Merger* configurations (Embick and Noyer, 2001).

### 1.2.3. The class of synthetic verbs

Synthetic verbs possess a lexical root, but they constitute a closed class. In present-day Basque truly only a dozen or so verbs can be inflected (Berro, 2015). What I will try to show is that auxiliaries can belong in this class in Eastern varieties.

## The starting issue

Asymmetry in basic word order between affirmative and negative sentences in Basque. Laka (1990), Ortiz de Urbina (1993, 1994), Elordieta (1997), Elordieta (2001), Haddican (2004, 2005, 2008); Etxepare and Uribe-Etxebarria (2009); Etxepare (2016); Etxepare and Haddican (2017); Elordieta and Haddican, 2018).

- (18) a. Etorri da (AFFIRMATIVE)  
Come.PARTC is  
"He/she has come"
- b. Ez da etorri (NEGATIVE)  
NEG is come.PARTC  
"He/she has not come"

The asymmetry in (18a,b) must be put in relation to another prominent restriction in Basque: finite forms cannot occur first in the sentence (*\*FinI restriction*).

- (18) a. \*\_ dator  
he/she comes
- b. Xabier dator  
Xabier.ABS comes  
"Xabier is coming"

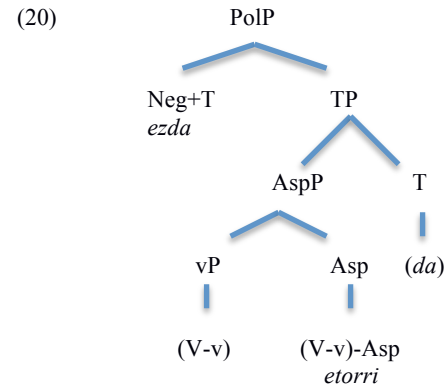
- c. Ez/Ba-dator  
NEG/AFF-comes  
"He/she doesn't come"

"First" in this case, is not a strictly linear notion (a topic in (19)):

- (19) \*Liburua, dakar  
book.the he/she brings.it  
"The book, he/she is bringing it"

### The Head Movement approach

The traditional head movement approach, developed by Ortiz de Urbina (1989) and Laka (1990), took the Auxiliary to be generated to the right of the vP. The presence of Negation forced T to adjoin to it (The Tense c-command condition):



That the Polarity Head is higher than IP in Basque is shown by the fact that polarity particles, such as negation and affirmation, survive IP-ellipsis (Laka, 1990):

- (21) Xabier joan da baina Mikel ez ~~(joan da)~~  
Xabier leave.PARTC is but Mikel NEG  
"Xabier left but Mikel didn't (leave)"

Problems (see recently Elordieta and Haddican, 2018). An obvious one is the

position of material (evidential and question particles) in between Neg and Aux:

- (22) Ez omen da etorri  
NEG EVID AUX come.PARTC  
  
“He/she didn’t reportedly come”

Sequences such as (22) can only be constructed via head-movement if the evidential is generated low, somewhere between the Aux and the Aspectual Phrase, and head movement constructs a complex head *negation-evidential-aux*:

- (23) [[[AspP] EVID] AUX]  
-> head movement

But elision can target IP leaving the evidential untouched:

- (24) A: Xabier etorri al da?  
Xabier come.PARTC Q is  
  
“Did Xabier come?”  
  
B: Bai/ez omen (~~etorri da~~)  
AFF/NEG EVID come is  
  
“He reportedly did”

#### Predicate fronting approach

In a series of works, Haddican (2001, 2004, 2008) argued that negation is generated below INFL but higher than VP in Basque (also Ortiz de Urbina, 1994). From that position, it raises to a higher polarity phrase and rescues the auxiliary from first position (25a). This results in the canonical order for sentential negation (25b).

- (25) a. [<sub>PolP1</sub> Pol<sup>0</sup> [<sub>IP</sub> Aux [<sub>PolP2</sub> Neg Pol<sup>0</sup> [<sub>VP</sub> ...V<sup>0</sup> ]]]] → Raising of Neg to PolP1  
b. [<sub>PolP</sub> Neg Pol<sup>0</sup> [<sub>IP</sub> Aux [<sub>PolP</sub> (Neg) Pol<sup>0</sup> [<sub>VP</sub> ...V<sup>0</sup> ]]]]  
c. Ez da etorri  
NEG AUX come  
“He/she did not come”

According to Haddican (2004), when the polarity phrase in the vicinity of the AspP

is not headed by overt negation, but occupied by a silent positive polarity head, it is the whole polarity phrase which raises to the higher polarity phrase, carrying the AspP behind (predicate fronting):

- (26) a. [<sub>PolP</sub> Pol<sup>0</sup> [<sub>IP</sub> Aux [<sub>PolIP</sub> ø Pol<sup>0</sup> [<sub>VP</sub> ...V<sup>0</sup> ]]]] → Raising of the inner PolP  
b. [<sub>PolP</sub> [<sub>PolIP</sub> ø Pol<sup>0</sup> [<sub>VP</sub> ...*etorri* ] ] Pol<sup>0</sup> [<sub>IP</sub> Aux...]]  
  
c. *Etorri da*  
come AUX “He/she has come”

#### IP-Ellipsis

We showed that polarity particles survive IP-ellipsis, suggesting Pol is higher than IP. Given Haddican’s analysis, we predict that AspP should also survive IP ellipsis, as it is fronted to the outer edge of PolP. This should only happen when no overt polarity particle is present (in ordinary affirmatives). The prediction is borne out, as shown in (27a), with the structural representation in (27b):

- (27) a. Ni joan naiz eta zu etorri  
I left AUX and you come  
“I left and you came”  
  
b. eta [<sub>TopP</sub> zu Top<sup>0</sup> [<sub>PolIP1</sub> [<sub>PolIP2</sub> etorri] [<sub>IP</sub> ...Aux]]

Nothing like that can be constructed with negation in the second term of the coordination:

- (28) \*Ni joan naiz eta zu ez etorri  
I left AUX and you NEG come  
“I left and you didn’t come”

#### Light verb predicate fronting

There is also overt evidence that the fronted predicate is actually a phrasal projection. Martinez (2015) presents rich evidence from *noun+verb* light verb constructions in Basque of sequences in which verbal phrase immediately follows the focus, as in (29):

- (29) a. Nork parte hartu du horretan?  
Who.ERG part taken AUX there.in  
“Who participated in that?”

b. [<sub>FocP</sub> Nork Foc<sup>0</sup> [<sub>PolP1</sub> [<sub>PolP2</sub> parte hartu] Pol<sup>0</sup> [<sub>IP</sub> du...hor...]]]

This is relevant because nothing can intervene in Basque between the focus of the sentence and the Aspectual phrase. This is known as Altube's law (1923):

(30) a. \*Nork/JONEK liburua erosi du  
wh-word/Jon book.the bought has

“Who bought the book/JON bought the book”

b. (Liburua) JONEK erosi du (liburua)  
book.the JON.ERG bought has book.the

“JON bought the book”

c. \*FOCUS XP ASPP

This means that the bare noun in (29) must be internal to the fronted predicate, and therefore that the fronted element is complex (phrasal).

Sequences such as (29a) have always posed a problem for the idea that what precedes the auxiliary in Basque is a head. The usual account in the head movement approach for those sequences capitalizes on the notion of incorporation (Fernandez, 1997). But the two parts are separable in virtually all cases. Compare (29) with (31):

(31) a. Nork hartu du parte horretan?  
Who.ERG taken has part this.in  
“Who participated in this?”

(31) shows that the two elements of the light verb predicate are separable, so incorporation would be an (obligatory) option just for the preverbal cases. Both parts of the light verb predicate also keep their accent, unlike clear V like *hitzégín* “talk <talk-do” or *hotségín* “call<call-do”), which have a single accent.

#### Remnant predicate fronting

One particularly enlightening case is what we may call *remnant predicate fronting*. The verb *egin* can be independently conjugated (as a synthetic verb). Consider the following sentence (from corpus, Martinez, 2015), with light verbal predicate *ihes egin* “escape (<escape-do)”:

(32) NIK ihes dagidan ari du euria  
I.ERG escape I.do.subjunctive PROG AUX rain.DET

“It rains such that I [and no one else] can escape”

A plausible way to account for cases such as (32) is that the verb merges directly with T, and the remnant of the light verb predicate undergoes predicate fronting:

(33) [<sub>FocP</sub> NIK Foc [<sub>PolP</sub> [<sub>VP</sub> *ihes (egin)*] Pol [<sub>TP</sub> T+*egin*...]]]

#### Complex objects

Other cases show that unequivocally phrasal elements may also occupy the pre-auxiliary position:

(34) HORRETAZ bakarrik gogoetarik egin al duzu?  
That.about only reflection.PART done Q AUX

“Did you reflect only on THAT?” (*gogoeta egin* “think.do”)

As you see the noun *gogoeta* is headed by a partitive determiner *-rik*, licensed by yes/no questions. See Haddican (2004, 2008), Etxepare and Uribe-Etxebarria (2009, 2012), and Elordieta and Haddican (2018) for arguments in favour of a predicate fronting analysis (reminiscent of *pseudo-incorporation*, as in Massam, 2000).

#### Concluding

I will adopt Haddican's view that the orders *ASP AUX* correspond to predicate fronting (*AspP*) to a left peripheral position. He calls that position Polarity. I will stick to that although my own view is that the position is related to the licensing of Assertion Time, in the sense of Klein (1994), and then subsequent work (Demirdache and Uribe-Etxebarria, 2000, 2004, 2007 among others). This position in any case is not directly related to Fin/T. Evidentials occur between the Aspectual Phrase and Fin:

(35) a. Etorri omen da  
come.PARTC EVID AUX  
“He/she reportedly came”

b. Ez omen da etorri  
NEG EVID AUX come.PARTC  
“She/he reportedly did not come”



What happens in such a case? The expected outcome, from a view in which displacement to the outer edge is part of the syntactic derivation, is that the derivation will crash, as the root configuration is one that fails to comply with the ban on empty Specs. I will show that the derivation nevertheless does not crash: it recruits a higher head, Focus, and attracts a focus operator to its outer edge. That is, in Eastern dialects, unlike in Central ones, something like (43) is possible:

- (43) a. JONEK du liburua erosi  
Jon.ERG has book.the bought  
“It is JON who bought the book”
- b.  $[_{FocP} JONEK Foc [_{PolP1} Pol^0 [_{TP} du [_{VP} V \text{root} [_{AspP} \dots erosi \dots ]]]]]]$

In other words, the edge condition is independent of the particular functional projection in which it applies.

## The dialectal divide: Eastern auxiliaries

### 2. The auxiliary as main predicate

One well-known difference between central/western and eastern auxiliaries concerns their use as the main predicate of the sentence: the auxiliary *izan* “be” in Eastern dialects is used in the same contexts as the synthetic verb *egon* “to be in a location” (cf. Spanish *estar*) in Central ones; and the auxiliary *edun* “have” in the same contexts in which central dialects use the synthetic verb *eduki* “to own, to contain”.

(C=Central dialects; W=Western dialects; E=Eastern dialects):

#### Locatives

- (44) a. Jon hor **dago**  
Jon.ABS there is.LOC  
“Jon is there” (C/W/E)
- b. Jon hor **da**  
Jon.ABS there is  
“Jon is there” (E)

#### Temporary states

- (45) a. Jon nekatu**rik dago**  
Jon.ABS tired.ABL is.LOC  
“Jon is tired” (C/W/E)
- b. Jon nekatu**rik da**  
Jon.ABS tired.ABL is  
“Jon is tired” (E)

#### Existentials

- (46) a. Etxe hartan bi logela **zeuden**  
House that.LOC two bedroom.ABS were.LOC  
“There were two bedrooms in that room” (C/W/E)
- b. Etxe hartan **baziren** bi logela  
House that.LOC AFF.AUX two bedroom.ABS  
“There were two bedrooms in that house” (E)

#### Possessives

- (47) a. Gizon batek bi seme **zeuzkan**  
man one.ERG two son.ABS owned (C/W/E)  
“A man had two sons”
- b. Gizon batek **bazituen** bi seme (E)  
man one.ERG AFF.AUX two son.ABS  
“Jon has a car”

#### Conclusion:

- (48) Eastern auxiliaries *be* and *have* may be used as main predicates in those contexts in which central and western varieties use synthetic verbs (locative *be* and possessive *own*).



### 3. Rescuing the finite form: Auxiliaries and synthetic verbs

#### 3.1. Central and Western varieties

Synthetic verbs and Auxiliaries do not display the same \*FinI restrictions in C/W:

##### Auxiliaries

- (49) a. Etorri da a'. AspP AUX  
come.PARTC AUX  
"He/she/it came"
- b. Ez da etorri b'. NEG AUX  
NEG AUX come.PARTC  
"He/she didn't come"
- c. \*JON da etorri c'. \*FOC AUX  
Jon.ABS AUX come.PARTC  
"JON came"

##### Synthetic verbs

- (50) a. Ez dator b'. NEG VERB  
NEG comes  
"He/she/it is not coming"
- b. JON dator a'. FOC VERB  
Jon comes  
"JON is coming"

(51) Fin-first restrictions in Central/Western Basque

	AspP	Polarity	Focus
AUX	+	+	*
SYNTHETIC	∅	+	+

#### 3.2. Eastern varieties

Turning now to Eastern auxiliaries, we observe that unlike central ones, they can be licensed by focus (Duguine and Irurtzun, 2008), as synthetic verbs (50b):

- (52) a. XABIER da jin b. XABIER dator  
Xabier.ABS AUX come.PARTC Xabier comes  
"It is Xabier who came" "XABIER is coming"

They also accept the rescuing configurations typical of auxiliaries in Central and Western varieties:

- (53) a. Ez da etorri (Auxiliary verb configuration)  
NEG AUX come.PARTC  
"She/he did not come"
- b. Etorri da (Auxiliary verb configuration)  
come.PARTC AUX  
"She/he came"

Eastern auxiliaries show synthetic verb behavior in terms of positional restrictions and rescuing configurations.

(54) Fin-first restrictions in Eastern Basque

	AspP	Polarity	Focus
AUX	+	+	+
SYNTHETIC	∅	+	+

#### 4. Inner Left Peripheries

A variable complement domain is one of the signature syntactic properties of lexical restructuring (see Wurmbrandt, 2004, i.a). The presence of inner left peripheries is another one. Haddican 2001, 2004, 2005, 2008; Etxepare and Uribe-Etxebarria, 2009 (the left periphery of Basque):

- (55) a. JON ez omen da etorri  
Jon.ABS NEG EVID AUX(3SA) come-PARTC  
"It is JON who reportedly did not come"
- b. [<sub>FocP</sub> Foc<sup>0</sup> [<sub>PolP</sub> Pol<sup>0</sup> [<sub>evidP</sub> Evid<sup>0</sup> [<sub>TP</sub> ... ]]]]

Eastern varieties present "inner" left peripheries. This only arises in the synthetic configuration.

### Negation

Negation can occur in a position following the auxiliary in Eastern varieties. This negation has not scope over the focus, but it does have scope over the event. (54B) is a possible answer to (54A).

(56) A : NORK du deus ere ez egin ?  
who-ERG AUX anything-ABS NEG do.PARTC  
“Who didn’t do anything?”

B : JONEK du deus ere ez egin  
Jon-ERG AUX anything-ABS NEG do-PARTC  
“It is Jon who didn’t do anything”

This negation is not constituent negation, since it licenses negative polarity items to its left (Etxepare and Uribe-Etxebarria, 2009), as does ordinary sentential negation (Laka, 1990). One plausible way of thinking of this is as Neg occupying the left edge of the aspectual complement, an inner polarity head:

(57) [<sub>FocP</sub> JONEK F<sup>0</sup> [<sub>TP</sub> du...(V) [<sub>PolP</sub> ez Pol<sup>0</sup> [<sub>Partc</sub> Phrase ...egin ]]]]

The fact that this negation can be combined with the higher one suggests we have two « left peripheries » :

(58) A: NORK ez du deus ere ez egin ?  
Who-ERG NEG AUX anything NEG do-PARTC  
“Who is the guy who failed not to do anything?”

B: JONEK ez du deus ere ez egin  
Jon-ERG NEG AUX anything NEG do-PARTC  
“JON is the guy who failed not to do anything”

### Focus

The periphery of the participial phrase also hosts focus. Importantly, this focus can be combined with a higher one (from Dirassar, 2013:145):

(59) a. ...ala HURA zen BERA jin ene ondotik?  
Or him.ABS was himself.ABS come.PARTC my after.ABL  
“Or was it he himself who came after me?”

b. ... [<sub>FocP</sub> hurak Foc<sup>0</sup> [<sub>Aux</sub> zen [<sub>FocP</sub> bera<sub>i</sub> Foc<sup>0</sup> [<sub>InfInP</sub> t<sub>k</sub> t<sub>i</sub> jin ene ondotik ]]]]]]

### Evidentials

A hearsay evidential like *omen* can only occur in the position immediately preceding the Aux in central dialects, but it may show up in the periphery of the aspectual verb in eastern ones (Etxepare and Uriá, 2016):

(60) Langonen zen omen bizi Hipokrataren alaba bakarra  
Langon-INNESS AUX(PAST-3SP) EVID live Hipocrates’ daughter single-D  
“It was in Langon where Hipocrates’ single daughter reportedly lived”

Occasionally, evidential doubling can be found (from the atlas Basyque, informant from Senpere, Labourd, translation of French *Il n’a rien avoué, paraît-il*):

(61) Ez omen du omen deusik erran  
NEG EVID AUX(3SE-3SA) EVID anything-PART say-PARTC  
“He didn’t reportedly say anything, reportedly”

We can therefore conclude that the aspectual clauses have a full left periphery, identical in structure to the one of main clauses:

(62) ... [<sub>FocP</sub> Foc [<sub>PolP</sub> Pol [<sub>EvideP</sub> Evid [<sub>PartcP</sub> ...]]]]]

The periphrastic structure is to some degree biclausal. The auxiliary, like synthetic verbs, possesses a lexical root, inserted outside the aspectual domain. Lexical verbs can take complements of different syntactic complexity. This may include a set of discourse-related projections.

(63) [...BE/HAVE [<sub>FocP</sub> Foc [<sub>PolP</sub> Pol [<sub>EvideP</sub> Evid [<sub>AspP</sub> ...]]]]]]]

### 5. Eastern auxiliaries as (optionally) synthetic verbs

(64) *Auxiliaries in Eastern dialects may*

(i) be used in same contexts as lexical *be* (locative) and *own* of Central dialects

(ii) show the same positional restrictions as synthetic verbs (which possess a lexical root), and

(iii) give rise to a double set of “left peripheral hierarchies”

## Finite forms with and without roots

Two possible takes:

Hypothesis 1: “Unselective \*Fin1” in Eastern varieties, as with synthetic verbs” (Laka, 1990)

(65)  $[_{PoP} XP \text{ Pol/Foc}^0 [T/Agr [v [VP]]]$

Hypothesis 2: ambiguous status of BE/HAVE

(66) a. ...[ *du* T/Agr [ v [ VP]]] (Central/Western and Eastern)  
 b. ...[ T/Agr [v *root* [ v [ VP]]]] (Only Eastern)

### 6. Rescuing conditions and restructuring

Evidence in favour of Hypothesis 2 is provided by the interaction between restructuring and the corresponding rescuing configurations.

#### 6.1. Restructuring aspectual configurations: the progressive

One clear instance of optional restructuring in eastern dialects comes from progressive constructions. Progressive constructions are typically bi-absolutive in all dialects, and they are headed by a verbal form *ari*, which can independently take aspectual endings. *Ari* selects a nominalized clause headed by a locative postposition *-n* (central coincidence, Hale, 1986; Demirdache and Uribe-Etxebarria, 2000), that I will gloss as ASP:

(67) a. Xabier [\_liburuak erosten] ari da (C)  
 Xabier.ABS books.ABS buy.NOM.ASP PROG AUX(3P.SA)  
 “Xabier is buying books”  
 b. Xabier [\_liburuen erosten] ari da (E)  
 Xabier.ABS books.GEN buy.NOM.ASP PROG AUX(3P.SA)  
 “Xabier is buying books”

The progressive *ari* in (65) can be aspectually determined, by either perfect or habitual aspectual endings:

(68) a. Xabier [\_liburuak erosten] ari-tzen da  
 Xabier.ABS books.ABS buy.NOM.INESS PROG-HAB AUX(3P.SA)  
 “Xabier is usually buying books”  
 b. Xabier [\_liburuak erosten] ari-tu da  
 Xabier.ABS books.ABS buy.NOM.ASP PROG-PARTC AUX(3P.SA)  
 “Xabier has been buying books”

The verb *ari* also has non-finite forms, as well as stem forms which combine with the subjunctive. It behaves as an ordinary verb in Basque. The structures in (66a,b) have been traditionally analysed as control structures, and have a clear biclausal status (Hualde and Ortiz de Urbina, 1987; Laka, 2006).

Eastern varieties, however, have developed an alternative configuration with *ari*, illustrated in (67). Compare (67a,b), from Lafitte (1944):

(69) a. Xabier ura/uraren karriatzen ari da  
 Xabier.ABS water-ABS/water.GEN carry-NOM.ASP PROG AUX(3P.SA)  
 “Xabier is carrying water”  
 b. Xabierrek ura/\*uraren karriatzen ari du  
 Xabier.ERG water.ABS/water.GEN carry-NOM.ASP PROG AUX(3PSE-3PSA)  
 “Xabier is carrying water”

This alternative configuration has the following properties:

- (i) it shows auxiliary switch under the embedded lexical verb;
- (ii) it shows the case alignment which corresponds to the embedded verb;
- (iii) the auxiliary agrees in number and person with the embedded object and the main subject;

This configuration is impossible under any overt aspectual marking on the progressive particle, as illustrated below:

(70) a. \*Xabierrek ura karriatzen aritzen du  
 Xabier-ERG water-ABS carry-NOM.ASP PROG-HAB AUX(3SPE.3SPA)  
 “Xabier is usually carrying water”



a lexical root), and

(iii) give rise to a double set of “left peripheral hierarchies”

*And in those cases*

(iv) they can be shown to be merged in a relatively low position in the clausal structure (below progressive, habitual and modal heads), at the edge of the aspectual phrase.

(v) they show locality effects vis-à-vis T/Agr, of the HMC/MMerger sort

Hypothesis 2: ambiguous status of BE/HAVE, repeated here:

- (79) a. ...[ *du* T/Agr [ v [ VP]]] (Central, Western and Eastern)  
b. ...[ T/Agr [v *root* [ v [ VP]]]] (Only Eastern)

### 9. Ellipsis (Suicing)

The ambiguity in the status of the auxiliary may help to account for another intriguing asymmetry between Eastern and Central/Western varieties of Basque: those varieties differ in terms of the domain targeted by ellipsis in both negative and positive sentences. In Eastern varieties (but not in Western/Central varieties), ellipsis can target the complement of the Polarity head, or the complement of the focus head, as shown by the free alternation between (80) and (81). It invariably targets the complement of Polarity in central dialects.

- (80) a. Jon etorri da, eta [TopP Miren Top [FocP ere [PolP ba Pol [~~TP~~]]]  
Jon.ABS come is and Miren.ABS also yes

‘Jon has come and Miren has too.’ (Central/Western/Eastern)

- b. Jon etorri da, eta [TopP Miren Top [FocP ere Foc [~~TP~~ bai (Pol) ...]]]  
Jon.ABS come Aux and Miren.ABS also

‘Jon has come and Miren has too.’ (Only Eastern)

- (81) A: Nor etorri da?  
Who.ABS come.PARTC is

‘Who came?’

- B: a. [FocP Nehor [PolP ez [IP ~~TP~~]]] (Eastern/Central/Western)  
anyone NEG

‘Noone’

- b. [FocP Nehor Foc [PolP ez (Pol) [~~TP~~]]] (Eastern only)  
anyone NEG

« Noone »

Taking into account that Basque is a strict Negative Concord language (overt negation is always necessary to license NPIs), it is natural to interpret this cross-dialectal difference in terms of the ambiguous status of the auxiliary. The Phase Edge is the focus in one case (when the auxiliary is the synthetic one, with elision targeting the Polarity Phrase), and the IP in the other case.

### Why roots?

#### 10. Contextual Determination of Phases

Boskovic (2014):

“The highest phrase in the extended projection of all lexical categories functions as a phase”

Let us take a synthetic auxiliary phrase with an inner left periphery:

- (82) [PolP \* \_ Pol [TP T **root** [FocP FOC [PolP Pol [EvidP Evid [AspP ...]]]]]]

Boskovic’s system implies that access to the contentful lexicon is going to trigger Spell Out (of the complement of the previous phase head). The highest phrase in the complement of the root (or the root-plus-T) is FocP. Upon insertion of the root (about this, see Borer 2005a,b, for a pre-Labeling Theory approach, and De Belder and Craenenbroeck 2015; Roberts, 2019, for a post-LT treatment), the complement domain of the Phase head goes to Spell Out. In this case, since the inner left periphery is maximally expanded, what goes to Spell Out is the inner Polarity Phrase. This phrase is not available anymore to satisfy the edge condition on the higher Pol. The expected outcome from a view in which displacement into the outer edge is part of the syntactic derivation, is that the derivation will crash. But it doesn’t: it recruits a higher functional projection, Focus, and attracts an overt phrase to its outer edge:

- (83) a. [<sub>FocP</sub> (XP) Foc [<sub>PolP</sub> Pol [<sub>TP</sub> T **root** [<sub>FocP</sub> (XP) Foc ... [<sub>AspP</sub> ... ]]]]]  
 b. XABIERREK du liburua erosi  
 Xabier.ERG has book.the bought  
 “It is Xabier who bought the book”

Remember that this is only possible upon insertion of a root (the synthetic verb option). Not as a general rescuing strategy for all cases.

Another option is AspP focus, with the AspP raised to the inner focal position and then raising to the higher one. This yields the distinctive *VP PTC Aux* orders of Eastern dialects (from corpus, journal *Herria*):

- (84) a. Hola denek **ikusi ere dute** erregina oraino pixkor dagoela  
 Thus all.ERG see.PARTC too AUX queen.DET.ABS still alive is.COMP  
 “Thus all have also seen that the queen is in good shape”  
 b. Erabakia **hartu bederen dute** berriz mintzatzer a biltzeko  
 decision take.PARTC at least AUX again speakNML-ALL meet.NML.PROSP  
 “At least they have taken the decision to come together again to talk”

- (85) [<sub>FocP</sub> [<sub>FocP</sub> *Etorri ere...*] Foc [<sub>PolP</sub> Pol [<sub>TP</sub> *da...(etorri ere)* ]]]

### 11. Freezing effects in extraction

Duguine and Irurtzun (2008) note that extraction is impossible out of the edge position in root-auxiliary configurations:

- (86) \*Nor erran duzu [<sub>CP</sub> (nor) d-ela etorri ]?  
 Who.ABS say.PARTC AUX(3S-2E) is-COMP come.PARTC  
 “Who did you say has come?”

(86) contrasts on the one hand with the absence of freezing effects in extraction out of ordinary auxiliatation constructions:

- (87) Nor erran duzu [<sub>CP</sub> (nor) etorri d-ela ]?  
 Who.ABS say.PARTC AUX(3S-2E) come.PARTC is.COMP  
 “Who did you say has come?”

On the other, with synthetic verb configurations (unexpected contrast):

- (88) Nor erran duzu [<sub>CP</sub> (nor) da-tor-ela ]?  
 Who.ABS say.PARTC AUX(3S-2E) T.COME.COMP

“Who did you say is coming?”

Let us propose the following (simplified) derivation for (88), with *-ela* (the declarative complementizer) the head of W:

### (89) Starting point

- a. [<sub>IP</sub> *da-tor* [<sub>VP</sub> ...(-tor-)...]]

### Merge C/Pol (-ela)

- b. [<sub>CP</sub> *-ela* [<sub>IP</sub> *da-tor* [<sub>VP</sub> ...(-tor-)...]]]

### EPP satisfaction via roll up (Kayne, 1994)

- c. [<sub>CP</sub> [<sub>IP</sub> *dator...*]<sub>i</sub>-*ela* (<sub>IP</sub> <sub>i</sub>)

### Merge Foc to C/Pol

- c. [<sub>CP</sub> Foc [<sub>CP</sub> [<sub>IP</sub> *dator...*]-*ela* [<sub>IP</sub> *da-tor* [<sub>VP</sub> ...(-tor-)...]]]] ->

### Merge Wh-word with FocP (extracting it from IP)

- d. [<sub>FocP</sub> wh-word C [<sub>CP</sub> [<sub>IP</sub> ...*dator...*]-*ela* [<sub>IP</sub> ...]]]]

### Move Wh-word out of the clause

- e. ... [<sub>CP</sub> (wh-word) C [<sub>CP</sub> [<sub>IP</sub> *dator...*]-*ela* [<sub>IP</sub> *da-tor* [<sub>VP</sub> ...(-tor-)...]]]]

Now let us try the same with the analytic counterpart of *etorri* “come”:

### (90) Merge C/Pol (-ela)

- a. [<sub>CP</sub> *-ela* [<sub>IP</sub> *da+root* [<sub>VP</sub> ...(-tor-)...]]]

### \*Roll up Movement to WP (v-AspP structure, \*FOFC)

- b. \* [<sub>CP</sub> [<sub>IP</sub> *da+root* ... [<sub>FocP</sub> *wh-word* [<sub>VP</sub> ...*etorri...* ]]<sub>i</sub>]-*ela*

Alternative derivation: recruit a higher category to satisfy the EPP.

(91) **Move I into C/Pol** (cf. *Ortiz de Urbina 1994, cf order in negative clauses*)

a.  $[_{CP} (da-root-ela) [_{IP} da-root [_{AspP} \dots etorri \dots]]]$

**Merge Foc (recruit a higher category)**

b.  $[_{FocP} \_ Foc [_{CP} (da-root-ela) [_{IP} (da+root-ela) [_{AspP} \dots etorri \dots]]]]]$

**Merge Wh-word internally to Foc (satisfy the alignment condition)**

c.  $[_{FocP} wh-word Foc [_{CP} (da-root-ela) [_{IP} (da+root+ela) [_{AspP} \dots etorri \dots]]]]]$

**Now, extracting the wh-word violates the alignment condition**

d.  $*[_{CP} (wh-word) Foc [_{CP} (da-root-ela) [_{IP} (da+root-ela) [_{vP} \dots etorri \dots]]]]]$

Ann (2007): Intonational Phrase Edge Generalization

(92) The Edge of an obligatorily parsed prosodic phrase cannot be phonetically empty

Cf.: PF approaches to *that-trace* effects (Kandybowicz, 2009; McFadden and Sundaresan, 2018, among others).

## Conclusions and Open Issues

The different status of auxiliaries in Western and Central areas and Eastern areas has various ramifications in the basic syntax of the clause. The presence of a root in the case of Eastern auxiliaries allows us to give a unified explanation of:

- (93)
- Main predicate status of HAVE/BE in Eastern varieties
  - Rescuing configurations for *\*FinI* similar to the ones in Synthetic verbs for Auxiliaries in Eastern varieties
  - Inner left peripheries in Eastern dialects
  - The relation between restructuring and the absence of synthetic verb properties in eastern Auxiliaries
  - The larger scope of ellipsis in Eastern dialects
  - AspP Focus particle Aux* orders in Eastern varieties
  - Freezing effects

The unified analysis of a-g capitalizes on the idea that the obligatory overt realization of the outer edge of a phrase (the EPP) is a PF-phenomenon. Satisfaction of EPP requirements has been shown to be parasitic on, but not directly dependent on any Functional Head. It is a movable requirement across the phase. One that favours an early alignment of prosodic and syntactic edges.

- (94)
- $[_{Domain\ of\ Assertion} \dots [_{FP} XP_{PF} F_1 \dots [_{IP} IP]]]$  (Optimal)
  - $[_{Domain\ of\ Assertion} \dots [_{FP2} XP_{PF} F_2 [_{FP1} F_1 \dots [_{IP} IP]]]]]$  (Suboptimal)

(95b) is possible, but only when forced (when (95a) is not possible for independent reasons).

(13) Align as soon as possible Prosodic and Syntactic Edges (Earliness Condition)

Given (a,b)

- $[_{Intonational\ Phrase} \dots]$
- $[_{Domain\ of\ Assertion} F_n \dots F_1 [\dots]]]$

Optimal alignment:

- $[_{Domain\ of\ Assertion} F_n \dots [XP F_1 \dots]]]$
- $[_{iP} [PhWord XP] \dots]$

Suboptimal alignment:

- $[_{Domain\ of\ Assertion} \dots [_{FP} XP F_n \dots [_{FP1} F_1 \dots]]]$
- $[_{iP} [PhWord XP] \dots]$

That establishing a left boundary is relevant in the analysis is supported by the fact that preverbal topics in Basque, which have an independent intonational contour, are irrelevant in rescuing configurations:

- (96) \*Liburuak, daramazkit  
books.the I.bring.them.now
- “The books, I am bringing them with me”

### Some Open Issues

-Stylistic Fronting (à la Holmberg)

-The relevant Domain (Phase head): Sheehan and Hinzen (2011). Polarity heads are truth predicates, and constitute the maximal expansion of the propositional domain. Propositional reference constitutes the clausal parallel to the maximally referring

subcase of referential DPs (proper names).

-What view of the construction of prosodic domains (see recently Richards, 2017, for Agree as an operation that establishes prosodic domains, in its contiguity theory framework (2016).

-The relation between classical EPP and this (closer to stylistic fronting). What happens if the prosodic activity is at the right and not the left? The phonological conditions (right edge) and the syntactic ones at the left periphery are disjoint. Prosodic movement outside vPs (Zubizarreta, 1998).

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