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Types and Distribution of Northern Basque Correlatives

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Types and Distribution of Northern Basque Correlatives

Abstract

This paper examines the distribution of Northern Basque free relatives in the construction type known as the correlative construction. Free relatives in Basque come in two, syntactically distinct varieties: one variety is a DP externally, the other variety is a CP. Both types of free relatives can occur in the correlative pattern, giving rise to distinct syntactic properties in the two cases. The most important of these pertains to a derivational difference: while DP free relatives undergo movement from one clause to the next resembling left dislocation, CP free relatives are always base-generated in the position they occur.

Keywords: correlative, free relative, left periphery, merge, move, syntactic category

1. Introduction^{*}

Correlativization, a characteristic relativization strategy of Indo-Aryan languages, has been studied both in the typological literature (Downing 1973, Keenan 1985) and in the generative one (Srivastav 1991, Dayal 1996, Izvorski 1996, Lipták 2000, Rebuschi 2003, Bhatt 2003, den Dikken 2005). In essence, correlativization is a non-local strategy of relativization in which a restrictive relative clause is found to the left of the nominal item it modifies, either in adjacent position or at a distance. The relative clause is ad-sentential: it adjoins to the clause that contains the nominal it modifies in the semantics. The schematic structure of correlatives is given in (1), illustrated by an example from Hindi in (2) (from Dayal 1996):

(1) [correlative clause ... RelXP ...] [main clause ... DemXP ...]

(2) [jo vahaan KhaRii hai] Raam us laRkii-ko jaantaa hai
REL there standing is Ram that girl-ACC know is
'Ram knows the girl who is standing there.'

The correlative clause in (2) is a headless (free) relative and contains a relative phrase, *jo* 'REL'. The main clause contains the nominal DemXP correlate, *us laRkii-ko* 'that girl-ACC', whose meaning is modified by the correlative. As Srivastav (1991) and Dayal (1996) convincingly showed with a number of syntactic tests, correlatives do not originate from ad-nominal constructions in which the nominal is construed as the head of relativization (in the pre-Kaynean sense of the word). In other words, the structure in (1) is not derived from an underlying headed relative structure.

As for the precise syntactic relation between correlative and nominal correlate, two accounts were proposed in the literature. The one proposed by Srivastav (1991) and Dayal (1996) for both single and multiple Hindi correlatives as well as by Bhatt (2003) for multiple correlatives involves base-generation (MERGE) of the correlative to the main clause. From this position, the correlative binds its correlate, as a generalized quantifier. The other account was proposed by Bhatt (2003) (and essentially in Wali (1982) and Mahajan (2000) as well) for single Hindi correlatives. According to this, the placement is the result of MOVE: the correlative is base-generated adjoined to its correlate and is optionally moved out of there via A-bar scrambling/QR. As Bhatt (2003) argues, the above two strategies can co-exist in one language: both MERGE and MOVE are attested in Hindi correlativization, in multiple and single correlatives respectively.

The purpose of this paper is to contribute to the study of correlatives by describing and analyzing constructions that have not received much theoretical attention yet: correlatives in Northern Basque, a dialect of Basque spoken in the Western part of the *Département des Pyrénées atlantiques* in France (Bay of Biscay). This dialect of Basque is of high theoretical interest for the study of correlatives, as it has two distinct classes of free relative constructions (Rebuschi 2001, 2003, 2004), both of which can occur as correlatives modifying a structurally lower correlate as in (1). The two types of free relatives clearly differ

^{*} We thank the audience of the 5th Glow Asia for useful comments on this paper. Our work is supported by NWO (*Netherlands Organization for Scientific Research*) and the *Fédération Typologie et Universaux Linguistiques*, CNRS. All data in this paper, unless otherwise indicated, are based on the judgements of two Northern Basque speakers, Marie Pourquié and Joana Casenave. The glosses and abbreviations in this paper are as follows: ACC = accusative; AUX = auxiliary; COM = comitative; COMP = complementizer; D = dative; DemXP = phrase with a demonstrative (the correlative pronominal); E = ergative case; INST = instrumental; OBL = oblique; PRS = present; PROSP = future; PRT = (assertive) particle; REL = relative pronoun; RelXP = phrase headed by a relative pronoun. Absolutive case is not glossed. Small caps stand for focus.

in category, one is externally a DP while the other is a CP. Corresponding to this category distinction, the correlatives formed with the two types of free relatives show distinct syntactic behaviour. The CP-type is always merged in the position where it surfaces and is unable to move in the syntax. The DP-type on the other hand can freely move across clauses in the manner of left dislocated constituents. Correlatives in Northern Basque thus reinforce Bhatt's (2003) claim that correlatives can make use of both MERGE and MOVE in one and the same language, and draw attention to the fact that the syntactic category of the relative clause might play a decisive role in which strategy is chosen.

The structure of the paper is as follows. Section 2 introduces the scene of the two types of free relatives in Northern Basque, with special attention to their category distinctions. Section 3 provides evidence for the correlative status of constructions that involve these free relatives in sentence-initial position, followed by the (pro)nominal correlate they modify. It will be shown that the relative clause in these constructions cannot be derived by movement from a lower position in which it is headed by the correlate, providing evidence for the correlative nature of these clauses. Section 4 will illustrate locality properties of correlative clauses, which in turn will serve as evidence for the analytical claims about the two types in section 5. Section 6 briefly summarizes the findings.

2. The two types of Northern Basque free relatives

2.1. The structure of Basque relatives

As (3) shows, the basic word order (which would be given to a question like What happened?) is SOV in Basque, the verb-auxiliary cluster being the final element in the sentence:

- (3) Gizon.a.k liburu.a irakurri du.
 man-SG-E book-SG read-PERF AUX
 'The man has read the book.'

Basque also has properties of free word order (non-configurational) languages as well. Other combinations of subject, verb and object (SOV, OVS, OSV, VOS and VSO) are all empirically attested, but they do not have the same status. Discourse properties of the constituents determine placement, so that focused constituents, for example, are always left adjacent to the verbs-auxiliary complex (a V2 property), and can be preceded by topics:

- (4) Gizon.a.k LIBURU.A irakurri du.
 man-SG-E book-SG read-PERF AUX
 'The man has read THE BOOK.'

For further facts and analysis of the syntax of Basque, we refer the reader to the recent literature (Ortiz de Urbina 1989, 1994, Laka 1990, Uriagareka 1998, Elordieta 2001, Arregi 2001, Vicente 2004 among others).

After this short introduction to Basque syntax, we turn to the properties of relativization. (Northern) Basque has two distinct ways of forming relative clauses, one that we will refer to as the bait-strategy and one called the en-strategy, named after the complementizers that occur in them. Both relative clauses have headed and free versions. In the following, we introduce these two types of relatives in turn. We follow Rebuschi (2001, 2003) in the discussion.

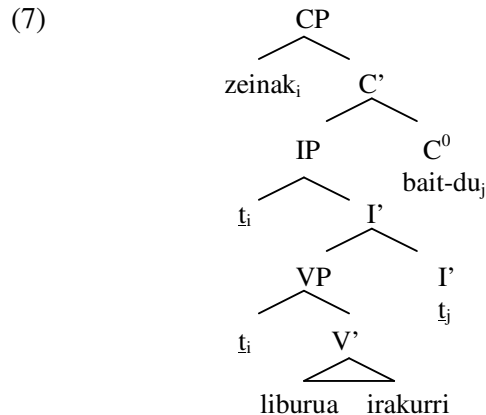
Bait-relatives are formed with the complementizer bait, which always appears as proclitic on the sentence-final tensed verb or auxiliary. They were originally appositive clauses, but nowadays they can be used both with appositive and restrictive meaning. Headed bait-relative clauses are always postnominal and make use of only one type of relative pronoun, zein 'which', which can be used with all types of heads (i.e. both human and inanimate) and can only be dropped if the clause has an appositive meaning. (5) illustrates a run-of-the-mill headed bait-relative:

- (5) Gizon.a [zeinak /*nor.k liburu.a irakurri bait-du], zaharra da.
 man-SG which-SG-E/who-E book-SG read-PERF bait-AUX old is
 'The man, who has read the book, is old.'

Bait-relatives can also be headless relatives, and as such can assume different positions in the sentence, embedded positions and peripheral ones (on the latter, see section 3). In contradistinction to their headed version, headless bait-relatives can involve any wh-item as relative pronoun, ranging through nor 'who', zer 'what', non 'where', noiz 'when', nola 'how', etc. This relative pronoun is always obligatory:¹

- (6) a. Mirenek musu bat emanen dio [nor.i ere mintzatuko bait-zara].
 Miren-E kiss one give AUX who-D ere speak bait-AUX-SG
 'Mary will give a kiss to whom you talk to.'
 b. Atseginekin hartuko dut [zer ere emanen bait-dautazu].
 pleasure-with take-PROSP AUX what ere give-PROSP bait-AUX
 'Whatever you'll give me, I will take it with pleasure.'

(7) provides a simple sketch of the internal structural configuration of these clauses, for expository purposes. The CP category of the highest node will be argued for in section 2.2. below.



The second type of relative clause of Basque, en-relatives have an altogether distinct structure from bait-relatives. En-relatives use the complementizer en, which shows up as an

¹ *Ere* has a meaning similar to 'even, also' in English. Its precise role, however, is different (see ex (15)). For this reason we do not gloss it.

enclitic on the sentence-final auxiliary. En-relatives normally have a restrictive interpretation² and they are always prenominal. Furthermore, unlike bait-relatives, they never contain any relative pronoun. They contain a gap in an argument position, which is linked to the external head constituent. This head can only be nominal in nature. For an illustrative example, consider (8):

- (8) [Liburu.a irakurri du.en] gizon.a.k] egi.a (ba-)daki.
 book-SG read-PERF AUX-en man-SG-E truth-SG PRT-knows
 'The man who has read the book knows the truth.'

En-relatives have headless versions. These can occur both in argument positions in the sentence as well as in the left periphery (see section 3). Free en-relatives (already identified as such in de Rijk (1969)) have exactly the same properties as headed ones, except that the head nominal is missing.³ Note, however, that the singularity and definiteness of this missing nominal as well as the case associated with it is always obligatorily marked on the relative clause.⁴ These morphemes are indicated in bold in the illustrative example to follow:

- (9) [e Liburu.a irakurri du.en.**a.k**] egi.a (ba-)daki.
 book-SG read-PERF AUX-en-SG-E truth-SG PRT-knows
 'The (one) that has read the book knows the truth.'

The ergative case (-k) marks the agentive role, or the grammatical function of the free relative. The -a morpheme comprises both number and definiteness of the nominal denoted by the free relative (Basque has a shared number-determiner system). Such morphological marking indicates that the en-free relative has a full-fledged nominal structure: singularity/definiteness and case is only marked on nominal constituents. As for the proper internal structure of these relatives, we will consider that they contain an empty nominal (marked by $\emptyset$), which corresponds to the head of the relative clause (see however Rebuschi 2001). Case and singularity/definiteness attach to this NP nominal. The basic structure of an en-free relative is that as given in (10) and (11):

- (10) [_{DP} [_{NP} [_{CP} e Liburu.a irakurri du.en.] $\emptyset$] a.k] egi.a (ba-)daki.
 book-SG read-PERF AUX-en-SG-E truth-SG PRT-knows
 'The (one) that has read the book knows the truth.'

² This is not to say that appositive meaning cannot be expressed using *en*-relatives. As (i) illustrates, this is possible:

(i) [[Gizon.a.k], [liburu.a irakurri du.en.a.k]] egi.a (ba-)daki.
 man.SG-E book-SG read-PERF AUX-en-SG-E truth-SG PRT-knows
 'The man, who has read the book, knows the truth.'

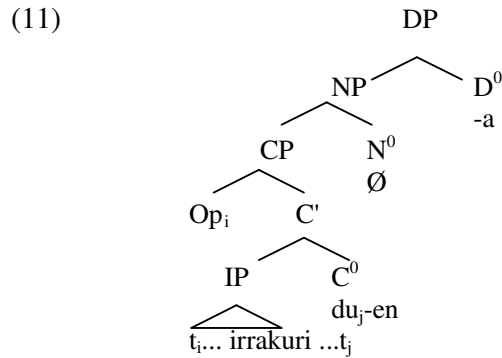
(i) is, however, not a headed relative construction, as the relative clause is a free relative, as the reader can ascertain upon reading the next paragraph.

³ This often gives rise to ambiguity in meaning due to the fact that subject, object and indirect object can all undergo pro-drop in Basque. Consider for example the following free relative:

(i) [e irakurri du.en.a]
 read-PERF AUX-en-SG
 'the (one) who has read it' / 'the (thing/one) (s)he has read'

This relative is ambiguous between the reading in which it denotes the agent (in which case the gap marked by *e* corresponds to the agent) and the reading in which the relative denotes the object read (in which case *e* corresponds to the theme).

⁴ In orthography, these morphemes are spelled in one word with the auxiliary+complementizer complex in the relative clause.



The next section will list even more arguments for the DP-status of these relatives.

2.4. The category difference between free relatives

As we have indicated above, bait- and en- free relatives substantially differ syntactically. The former are wh-clauses, while the latter contain no overt relative pronoun binding the gap inside the clause. In this section we look at the external categorial properties of these clauses in more detail. The final conclusion will be that the two types of free relatives also differ in category: bait-relatives are CPs, while en-relatives are DPs.

Evidence for the DP-status of en-relatives was already provided in the previous section, where it was shown that they receive obligatory nominal morphology (number, definiteness and case). This unambiguously indicates that these free relatives have nominal status. Bait-relatives on the other hand, do not have any nominal morphology on them. Consider again (12), repeated from above:

- (12) Mirenek musu bat emanen dio [nor.i ere mintzatuko bait-zara]. (=6a)
 Miren-E kiss one give AUX who-D ere speak bait-AUX-SG
 'Mary will give a kiss to whom you talk to.'

As can be seen in (12), singularity/definiteness is not indicated on the free relative. Case is not spelled out either (but the case corresponding to the whole free relative preferably matches that of the relative pronoun). This indicates that the bait-free relative does not have the category of a DP, unlike the en-free relative. In the remainder of this section, we look for more evidence to this effect. Further evidence for the category distinction between the two types of clauses will come from (i) denotation, (ii) modification by only-type adverbs, and (iii) coordination.

(i) Denotational differences. In line with the fact that en-free relatives are obligatorily nominal in nature, we find that they can only denote individuals, but not properties. Bait-relatives on the other hand can easily denote both. Example (13) illustrates this first for en-relatives. The en-relative here shows up in the correlative pattern (see section 3 below). The relevant thing to notice here is the type of the correlate constituent the relative clause is associated with. As (13a) shows, the relative clause can be co-referential with a nominal expression like hura 'he' (a demonstrative, in fact). (13b) and (13c) indicate that halako 'such a person' or hala 'so, thus' are impossible associates:

- (13) a. [Huts egiten du.en.a], hura zigortua izanen da.
 mistake doing AUX-en-SG that-SG punished-SG be-PROS is
 'Who makes a mistake, such a person will be punished.'

- b. ??[Huts egiten du.en.a], halako.a zigortua izanen da.
 mistake doing AUX-en-SG such-SG punished-SG be-PROS is
 'Who makes a mistake, such a person will be punished.'
- c. *[Huts egiten du.en.a], hala zigortua izanen da.
 mistake doing AUX-en-SG so punished-SG be-PROS is
 'How he made a mistake, so will he be punished.'

Just as (13c), (14) shows that en-relatives cannot have an adverbial (manner, reason, result) reading:

- (14) [Jonek egiten du.en.a]
 Jon-E doing AUX-en-SG
 'the thing Jon does' / *'the way Jon does it'

Parallel restrictions cannot be found with bait-relatives. These can easily denote manner, for example and be associated with adverbial associates like hala 'so':

- (15) [Nola Jonek egiten bait du], hala (ere) egiten du Peio.
 how Jon-E doing bait AUX so ere doing AUX Peio
 'The way Jon does it, so Peio does it too.'

This behaviour indicates that bait-relatives can be non-nominal. This in itself of course does not provide any evidence to the effect that they are necessarily CPs. To this effect, we need to look into modification and coordination possibilities.

(iii) Modification by only-type adverbs. In combination with adverbial/quantificational elements like bakarrik 'only', baizik ... ez, lit. but... not 'except' and guziak 'all', en- and bait-relatives show distinct behaviour. Only en-free relatives can combine with these elements. We illustrate this with bakarrik 'only':

- (16) [Huts egiten du.en.a] bakarrik zigortuko du Peio.
 mistake doing AUX-en-SG only punished-PROSP AUX Peio-E
 'Peio only punishes (s)he who makes a mistake.'
- (17) *[Nork ere huts egiten bait-du] bakarrik zigortuko du Peio.
 who-E ere mistake doing bait-AUX only punish-PROSP AUX Peio-E
 'Peio only punishes (s)he who makes a mistake.'

We believe this test indicates category distinctions. Only-type adverbials/quantifiers are only compatible with substantive categories, like DPs, but crucially not CPs. Evidence to support this claim comes from the incompatibility of these adverbials/quantifiers with clearly clausal material like embedded finite clauses. As (18) shows, embedded clauses can never associate with bakarrik in Basque:

- (18) *[Peio eri dela] bakarrik, erran dautate.
 Peio sick is-COMP only said AUX
 'They've told me only that Peio is sick.'

If the impossibility of bakarrik associated with bait-relatives follows from the same category restriction, as that operative in (18), this provides evidence for the CP-status of bait-relatives.

(iii) Coordination. The last, maybe the strongest, argument for the CP-status of bait-relatives comes from the observation that en- and bait-relatives have different coordination

possibilities with constituents that are beyond any doubt CPs. The ones in questions are conditional if-clauses. As (19) indicates, if-clauses can be coordinated with bait-free relatives without any problem:

- (19) [nork ere bekatu egiten bait du] eta [berehala hiltzen ba-da] ...
 who-E ere sin doing bait-AUX and on.the.spot dying if-AUX
 lit. 'who sins and if he dies on the spot...'

The same coordination possibility does not exist with en-free relatives. These cannot be coordinated with if-clauses under any circumstances:

- (20) *[bekatu egiten du.en.a] eta [berehala hiltzen ba-da] ...
 sin doing AUX-en-SG and on.the.spot dying if-AUX
 'idem'

Conditionals being CPs, the 'Law of Coordination of Likes' principle (Williams 1978) requires that they can only be coordinated with other CPs. From this it follows that bait-relatives have to be CPs themselves, since they can be coordinated with conditionals without a problem. En-relatives on the other hand are clearly not CPs externally.

With the above tests in place, we hope to have provided syntactic arguments for the CP status of bait-free relatives and the DP-status of en-free relatives. In the next section we turn to the external distribution of these clauses, more precisely their occurrence in correlativization patterns.

3. Basque free relatives in the left periphery

3.1. Bait- and en-relatives in the left periphery

As the previous section mentioned in passing, both bait- and en-relatives can be initial in their sentence. When they occur in this position, it is possible to spell out the nominal constituent that they modify lower in the structure. Consider examples (21) and (22) below. The free relatives are initial in the sentence⁵, followed by a pronominal correlate hura 'that':

- (21) [Nor.k ere huts egiten bait du], (eta) hura Peiok zigortuko du.
 WHO-E ere mistake doing bait AUX and that Peio-E punish-PROSP AUX
 lit. 'Who(ever) will make a mistake, Peio will punish him.'
- (22) [Huts egiten du.en.a], hura Peiok zigortuko du.
 mistake doing AUX-en-SG that Peio-E punish-PROSP AUX
 'The one that will make a mistake, Peio will punish him.'

The precise meaning of the two examples is the same. The relative clause is coindexed with the (pro)nominal hura 'that' in both cases. In both constructions the relatives have a restrictive meaning, and can receive both specific and universal interpretation, the choice depending on the tense and aspect properties of the matrix verb (if the matrix verb is perfective or past, the specific reading is preferred).

Putting aside the presence of the coordinator element eta in (21) (which can only occur with bait-relatives and to which we return in section 5), these two structures run perfectly parallel to the Hindi example in (1): the free relatives in the left are coindexed with the (pro)nominal

⁵ Initiality is not absolute: topics can precede the free relative, see Rebuschi and Lipták (to appear) for data and analysis of these facts.

correlate that they modify in the semantics and which follows them in the syntax. The Northern Basque examples, just like the Hindi one, seem to embody a non-local relativization strategy in which a restrictive relative clause sits to the left of the nominal item it modifies. This relativization strategy is correlativization.

Correlative constructions have a number of characteristic properties (Srivastav 1991). The most important of these is that relative clause and nominal do not form a headed relative structure. Next to this defining property others involve the following properties in Hindi: (i) the correlate can only be a definite item with a demonstrative (or a strong quantifier), but cannot be an indefinite expression, (ii) correlatives allow for multiple relative pronouns, (iii) correlatives do not allow for stacking, (iv) correlatives can spell out the nominal both in the relative phrase (RelXP) as well as the correlative (DemXP).

While all these examples obtain in Northern Basque, except for (iv) (see property (iii) in 3.2 below), due to space limitations we only illustrate the most important one: the fact that these constructions cannot be derived from headed structures. This suggests that the constructions we are dealing with are genuine correlative constructions.

3.2. Arguments against headedness

In this section we will show that the underlying structure of (21), (22) above is not one in which the correlate DemXP phrase is the head of the relative clause to the left of it. In other words, it will be shown that the structure in (23) cannot be a representation for (21) and (22):

(23) *[RELATIVE CLAUSE]_i ... [DemXP t_i] ... WRONG representation

Arguments to this effect will come from three domains: (i) relative pronoun selection in bait-relatives, (ii) double case-marking in en-relatives, (iii) restriction on the correlate with both bait- and en-relatives. The following will illustrate these properties in turn.

(i) Relative pronoun selection in bait-relatives. The free relative status of the bait-relative in (21) can be easily shown using distributional facts about the distinct relative phrases mentioned in section 2.1 above. As was shown there, headed bait-relatives only allow for the relative pronoun zein 'which', while bait-free relatives can involve any wh-phrase:

(24) Gizon.a [zein.a.k /*nor.k liburu.a irakurri bait-du], zaharra da.(=ex.5)
man-SG which-SG-E/who-E book-SG read-PERF bait-AUX old is
'The man, who is reading the book, is old.'

(25) Mirenek musu bat emanen dio [nor.i ere mintzatuko bait-zara]. (=ex.6)
Miren-E kiss one give AUX who-D ere speak bait-AUX
'Mary will give a kiss to whom you talk to.'

In the construction in (21), repeated here, any wh-phrase can occur in the relative clause, showing beyond any doubt that it is not a headed relative:

(26) [Nor.k ere huts egiten bait-du], (eta) hura Peiok zigortuko du.
who-E ere mistake doing bait-AUX and that Peio-E punish-PROSP AUX
lit. 'Who(ever) will make a mistake, Peio will punish him.'

In other words, bait-relatives that occur in constructions like (21) are always free relatives.

(ii) Double case marking in en-relatives. To demonstrate the free relative nature of en-relatives, we need to turn to nominal morphology. As was shown in section 2.1, en-relatives are always marked for case and number/definiteness when they occur as free relatives (cf.

27), but not when they are headed (cf. 28). In the latter case, case and number/definiteness morphology, marked bold here, occurs on the head nominal only:

- (27) [Liburu.a irakurri du.en.**a.k**] egi.a (ba-)daki.
 book-SG read-PERF AUX-en-SG-E truth-SG PRT-knows
 'The (one) that has read the book knows the truth.'
- (28) [[Liburu.a irakurri du.en(***a.k**)] gizon.**a.k**] egi.a (ba-)daki.
 book-SG read-PERF AUX-en-SG-E man-SG-E truth-DET.SG PRT-knows
 'The man who has read the book knows the truth.'

In the construction type exemplified in (22), both the en-relative and its pronominal are obligatorily marked for case (and number):

- (29) [Huts egiten dut.en.**e.k**], h(ai)**ek** prezio.a pagatuko dute.
 mistake doing AUX-en-PL-E that-PL-E price-SG pay-PROSP AUX
 lit. 'The (ones) that make a mistake, those will pay (the) price.'

Since double case marking on both the head nominal and the relative clause is impossible in headed relatives (cf. 28), this evidences that the en-relative in (29) and (22) cannot be derived from an underlying headed pattern. The left peripheral relative in these is a free relative clause and as such needs to carry nominal morphology.

(iii) Demonstrative selection. The morphological evidence in the above sections to the effect that both bait-relatives and en-relatives in (21) and (22) are free relatives can be further demonstrated by restrictions on the correlate phrase that these relative clauses associate with. The associate can only be a demonstrative element (a pronominal), but not an indefinite phrase or a full DP.⁶ This holds both for bait-relatives and en-relatives in the same way. Due to space limitations, we illustrate this for full DPs only:

- (30) *??[Nork ere huts egiten bait-du], (eta) ikasle.a Peiok zigortuko du.
 who-E ere mistake doing bait-AUX and student-SG Peio-E punish-PROSP AUX
 lit. 'Who makes a mistake, Peio will punish the student.'
- (31) *??[Huts egiten du.en.a], ikasle.a Peiok zigortuko du.
 mistake doing AUX-en-SG student-SG Peio-E punish-PROSP AUX
 lit. 'The one that makes a mistake, Peio will punish the student.'

In contrast, indefinites or full DPs are allowed in the head position of headed relatives, as the following examples illustrate for full DPs:

- (32) [Gizon.a [zeinak liburu.a irakurri bait-du]], zaharra da.
 man-SG which-SG-E book-SG read-PERF bait-AUX old is
 'The man, who has read the book, is old.'
- (33) [[Liburu.a irakurri du.en] gizon.a.k] egi.a (ba-)daki.
 book-SG read-PERF AUX-en man-SG-E truth-SG PRT-knows
 'The man who has read the book knows the truth.'

This systematic difference between headed relatives and constructions in (21), and (22) show that the latter cannot be derived from an underlying pattern. If it could, we would expect that

⁶ Recall that full DP associates are allowed in Hindi correlatives, as was mentioned above.

full DP nominals could occur in these examples, contrary to facts.

With these facts and the others in this section, we hope to have provided strong evidence for the free relative status of bait- and en-relatives in constructions where they occur in the left periphery, preceding their associate. It can be concluded that Northern Basque relatives in the left periphery do not originate from an underlying headed position. This in turn shows that the association between the relative clause and the associate is characteristic of correlative constructions. The remainder of this paper deals with further properties of these constructions. Section 4 will uncover properties pertaining to locality effects, which will be shown to differentiate between bait- and en-relatives in the complex clausal domain. Section 5 will provide a structural analysis of the two types, built on the evidence in section 4.

4. Syntactic properties of bait- and en-correlatives: locality effects

The previous section provided evidence against an analysis of Northern Basque correlatives in which the sentence-initial relative clause starts out from a headed position. This raises the general question: what is the underlying structure of these constructions? Or, more specifically: is there evidence that the correlative and associate are generated next to each other at any point in the derivation or is the correlative always merged in a position adjoined to the CP?

In this section, we will try to see if Northern Basque correlatives provide evidence for either of the two scenarios. This will be primarily done by looking at locality properties. It turns out that bait- and en-relatives differ substantially in this domain, when it comes to association across clause boundaries. Linked to a category difference between the two types, bait-relatives can associate with their correlate freely, while in the case of en-relatives constraints on syntactic locality must be observed. As far as simple clauses are concerned on the other hand, we find no evidence for a movement analysis of either type of correlative clause.

4.1. Locality in complex clauses

In (Northern) Basque, locality across clause boundaries is constrained in well-known ways: both topic movement and wh-movement show island effects of the familiar kind. Complex NPs for example, block topic and wh-extraction, as (34) and (35) respectively demonstrate:

- (34) *Jon, ez dut ezagutzen [DP[(hura) zigortuko du.en gizona]].
Jon NEG AUX-1SG know that punish-PROSP AUX-en man-SG
'Jon, I don't know the man who will punish him.'
- (35) *Nor_i ez duzu ezagutzen [DP[_i zigortuko du.en gizona]]?
who NEG AUX-2SG know punish-PROSP AUX-en man-SG
lit. 'Who don't you know the man who will punish?'

Relative clauses in correlative constructions can be found at a distance from their pronominal associate, appearing in a clause higher than the latter:

- (36) [Nor.k ere huts egiten bait-du], ba-dakit [hura Peiok zigortuko du.ela]
who-E ere mistake doing bait-AUX PRT-know-1SG that P-E punish-PROSP AUX-COMP
lit. 'Who(ever) will make a mistake, I know that Peio will punish him.'
- (37) [Huts egiten du.en.a], ba-dakit [hura Peiok zigortuko du.ela]
mistake doing AUX-en-SG PRT-know-1sg that Peio-E punish-PROSP AUX-COMP
'The one that will make a mistake, I know that Peio will punish him.'

If the relative clauses undergo movement in these constructions, it is expected that they show island-constrained behaviour similar to that of topicalization in (35). This is because the relative clauses in correlatives behave (both syntactically and semantically) as topics (Bittner 2001, Lipták 2005).

Interestingly, the prediction that correlatives are constrained by locality is borne out in the case of en-relatives only. Bait-relatives can be separated from their correlate by any island without loss of grammaticality. Thus, consider (38), a case where a complex NP island intervenes between the two. For ease of parsing, the relative clause and its associate are marked by italics and the paraphrase mirrors the original structure.

- (38) [Nork ere huts egiten bait du], ez dut ezagutzen
 who-E ere mistake doing bait AUX NEG AUX-1SG know
 [DP[hura zigortuko du.en] gizona].
 that punish-PROSP AUX-en man-SG
 lit. '[Who makes a mistake], I don't know [the man [who would punish him]].'

As can be seen here, the pronominal associate is embedded in the complex NP 'the man who should punish him', a headed relative clause. The fact that the sentence is grammatical indicates that no movement has taken place from inside this relative clause. This in turn shows that the bait-relative is immobile. It is base-generated in the position in which it occurs in overt syntax, adjoined to CP, as (39) schematically illustrates:

- (39) [CP₂ [CP wh... bait-] (...) [CP₁ DemXP...]]

Unlike bait-relatives, en-relatives are constrained by the same island contexts. En-relatives cannot be separated from their correlate by any island. The construction parallel to (38) gives a sharp ungrammaticality with en-relatives:

- (40) *[Huts egiten du.en.a], ez dut ezagutzen
 mistake doing AUX-en-SG NEG AUX-1SG know
 [DP[(hura) zigortuko du.en] gizona].
 that punish-PROSP AUX-en man-SG
 lit. [He who makes a mistake], I don't know [the man [who will punish him]].'

Such systematic and sharp differences in grammaticality indicate that the derivation of en-relatives clearly differs from that of bait-relatives in complex sentences of this sort. When en-relatives occur external to the clause that contains their associate, they undergo movement to their surface position. En-relatives originate from the clause where their demonstrative sits and can raise out of there to higher clauses, as the arrow in (41) shows.

- (41) [CP₂ [DP ... -en]_j (...) [CP₁ [t]_j [DemXP ...]]
- ↑ Movement

Does the difference between bait- and en-relative follow from any independent property of these relatives? If the argumentation in section 2 is on the right track, en-relatives are DPs, and bait-relatives are CPs. It therefore seems reasonable to link the observed difference in cross-sentential placement to their categorial difference: DP-free relatives obligatorily undergo movement when they occur outside the clause their associate is found in, while CP-free relatives are always merged in situ. This distinction is arguably rooted in the category of the free relative, as can be shown by the fact the behaviour of DP-correlatives is paralleled by the behaviour of DP-left dislocates. The left dislocate and its resumptive element are always

generated in one clause. The former can move out of this clause only when it observes locality. The above complex NP island blocks the appearance of the left dislocate in the higher clause:

- (42) *Jon, ez dut ezagutzen [DP[(hura) zigortuko du.en] gizona].
 Jon NEG AUX-1SG know that punish-PROSP AUX-en man-SG
 'He who makes a mistake, I don't know the man who will punish him.'

The parallel with DP-type correlatives thus follows logically. CP-free relatives on the other hand seem to be immobile in Basque. For their placement the only option is merge.

4.2. Locality within the same clause

In this section we set out to examine locality properties in simple clauses. The obvious facts to check in this respect would be reconstruction effects, with BT-C effects for example. (43) and (44) show one such test: we placed an R-expression in an object correlative, and a pronominal into the subject position of the main clause. Both bait- and en- correlatives allow for co-reference between the two items, suggesting that the relative clause does not occupy a sentence-internal position lower than the subject. If it did reconstruct to such an internal position, the subject pronominal would c-command the correlative, ruling out co-reference with the R-expression.

- (43) [Nor ere Jonek_i maite bait-du]_j, (eta) hura_j hark_i berekin hartuko du.
 who ere Jon-E loves bait-AUX and that that-E with-him take-PROSP AUX
 (44) [Jonek_i maite du.en.a]_j, hark_i hura_j berekin hartuko du.
 Jon-E loves AUX-en-SG that-E that with-him take-PROSP AUX
 'Whom(ever) Jon loves, he will take him with him(self).'

This makes it unlikely that the relative clause can originate in the position of the object, for example adjoined to the object pronominal associate (as argued for Hindi correlatives in Bhatt 2003). Note that this conclusion is reinforced by the observation that en-relatives can never be found in sentence internal position to begin with in overt syntax, when their demonstrative associate is also present:⁷

- (45) *Mirenek musu bat emanen dio [partida irabaziko du.en.a] hari.
 Miren-E kiss one give-PROSP AUX game win-PROSP AUX-en-SG that-DAT
 'Mary will give a kiss to the one who will win the game.'

This suggests that the correlative clause and the pronominal associate never occur next to each other in sentence-internal position. As a result, the correlative has no position to reconstruct back to in (44).

Concluding the present section, locality properties within a sentence show that bait- and en-relatives do not originate from a sentence-internal position next to their associates. The pronominal associate and the correlative do not form a constituent at any point in the derivation:

⁷ We do not demonstrate the same for *bait*-relatives here, as the facts here are admittedly more complex than those involving *en*-relatives. *Bait*-relatives can in some contexts occur in structures like (45), but one can find evidence against deriving *bait*-correlatives from these structures — see Rebuschi and Lipták (to appear) and Rebuschi (in press).

- (46) a. [CP [CP wh ... bait-] [CP ... DemXP ...]] Base-generation
 b. [CP [DP [CP -en]] [CP ... DemXP ...]]

5. The structure of Northern Basque correlatives

5.1. The structure of en-correlatives

According to the evidence in section 4, en-relatives are base-generated adjoined to the minimal CP that contains the demonstrative associate. There is no evidence for movement within the clause the correlative originates in, but there is evidence for movement across clause boundaries if the correlative occurs outside its own clause. The situation was captured by the following schematic structures:

- (47) a. [CP [DP ... -en] [CP ... DemXP ...]] simplex sentences
 b. [CP₂ [DP ... -en]_j (...) [CP₁ [t]_j [DemXP ...]]] complex sentences
- ↑

We take it that the observed clausemateness of en- relatives in (47b) is the result of a tight semantic relationship between the relative and the associate, which requires that the correlative always gets generated in the same clause as its associate. As was pointed out in (42) above, this behaviour in the complex domain parallels that of left dislocation. The clausemateness property seems to characterize left dislocation in general. Iatridou (1995) for examples shows the same facts about Clitic Left Dislocation (cf. 48a) in Greek. The left dislocate is always base-generated adjoined to the minimal CP containing its clitic associate, as the complex NP island effect in (48b) shows:

- (48) a. Ton Kosta i Maria ton idhe.
 the Kosta the Maria him saw
 'Kosta, Maria saw him.'
 b. *Ton Kosta sinandisa [DP tin kopela [pu ton idhe]].
 the Kosta met-1SG the girl who him saw
 'Kosta, I met the girl who saw him.'

Cross-clausal locality properties of en-relatives thus mirror those of left dislocation, showing that en-relatives can be said to take part in a kind of left dislocation pattern. It has to be noted right away that while the parallel with left dislocation is real, the exact properties of the two constructions are not completely parallel. First, unlike en-correlatives (cf. 44), left dislocation does reconstruct according to the evidence of a BT-C violation in (49):

- (49) *Jonen_i liburua hark_i irakurzen du.
 Jon's book-SG that-E reading AUX
 'John_i's book, he_i reads.'

Second, the placement of the pronominal associate differs in the two cases. With correlatives, the pronominal associate can occur postverbally, but with left dislocation it cannot:

- (50) [Huts egiten du.en.a], Peiok zigortuko du hura.
 mistake doing AUX-en-SG Peio-E punish-PROSP AUX that
 lit. 'The one who makes a mistake, Peio punishes that.'
- (51) [Nork ere huts egiten bait-du], Peiok du zigortuko hura.
 who-E ere mistake doing bait-AUX Peio-E AUX punish-PROSP that-ABS
 'idem'
- (52) *[Ene semearen laguna], Mirenek jo du hura.
 my son's friend Miren-E hit AUX that
 'My son's friend, Miren hit him.'

Last but not least, the associate of left dislocation can be a full DP, while the associate of correlatives can only be a pronoun (see 30 and 31 above) (small caps indicates focus):

- (53) [Jon], gizon hura BIHAR dut ikusiko.
 Jon man that tomorrow AUX see-PROSP
 'John, that man I'll see TOMORROW.'
- (54) ??[Huts egiten du.en.a], ikasle hura Peiok zigortuko ditu.
 mistake doing AUX-en-SG student that Peio-E punish-PROSP AUX
 lit. 'Who makes a mistake, Peio will punish that student.'

These facts indicate that while en-correlatives can be conceived of as a kind of left-dislocation strategy, this left dislocation strategy is not fully identical to ordinary left dislocation of DP-constituents. Further research is needed to show if the differences between the two can be made to follow from independent factors. As long as evidence to this effect is missing, we believe en-free relatives in the left periphery coupled with a pronominal associate instantiate a genuine correlative construction that cannot be fully derived from left dislocation.

5.2. The structure of bait-relatives

Compared to en-relatives, bait-relatives were shown to have a looser syntactic association with their pronominal correlative. Bait-relatives are always merged at the position they occur in overt syntax. There is no evidence for their movement either in simplex or complex sentences:

- (55) a. [CP [CP wh... bait-] [CP ... DemXP...]] simplex sentences
 b. [CP₂ [CP wh... bait-] (...) [CP₁ ... DemXP...]] complex sentences

From this we can conclude that the semantic relationship between the CP-relative and its associate is less tight than in the case of en-relatives. From the semantic point of view, we do not exactly follow Srivastav (1991)/Dayal (1996), according to whom the CP undergoes maximalization (i.e. is interpreted as a generalized quantifier) and naturally binds the pronominal correlate, itself interpreted as a variable over entities. We think that the bait-CP translates into a property, which binds a property variable within the translation of the pronoun. In any case, since such binding is not constrained by locality, bait-relatives, which always c-command their associate, can occur at an arbitrary distance from it, not being hindered by any island boundary that might occur in between.

While the basics are in place, the precise structural representation of bait-correlatives is not yet complete. Bait-relatives are characteristically associated with an optional coordinating element, eta 'and', which we have not yet commented on up to now:

- (56) [Nork ere huts egiten bait du], (eta) hura Peiok zigortuko du.
 who-E ere mistake doing bait AUX and that Peio-E punish-PROSP AUX
 lit. 'Who(ever) makes a mistake, Peio will punish him.'

Such a coordinator — or connective — is by no means an idiosyncratic quirk in Northern Basque correlative constructions. Similar coordinators can be found in correlative structures in other languages. The following illustrate facts from Burushaski (Tiffou and Patry 1995) and Russian (Izvorski 1996). The coordinator is bolded in both.

- (57) [AmenmoiNgabariN écam] (**ka**) mo gusmoiNa_ γare sail ayét.
 which-COM words do-FUT-1SG and the woman-COM with walk do.not
 'Do not walk with the woman with whom I talk.'
 (58) [Kogo ty predložiš], togo **i** my vyberem.
 whom you suggest that-one and we will-appoint
 'We'll appoint who you suggest.'

How to accommodate this element in the structure of correlatives? While we will not attempt to give any analysis for the Burushaski and Russian facts, we'll attempt to capture its nature in Northern Basque, basing ourselves on the distribution of the coordinator within simplex and complex sentences. The first thing to observe is that that eta and the pronominal associate can be separated from each other, as the sentences in (59) show. The coordinator, however, must be preverbal, and it always occurs next to the correlative clause:

- (59) a. [Nork ere huts egiten bait du], (eta) Peiok hura zigortuko du.
 b. [Nork ere huts egiten bait du], (eta) Peiok du zigortuko hura.

It is important to note that complex sentences, in which the correlative clause appears outside its original clause (recall the grammaticality of (38) above) cannot exhibit eta in any position:

- (60) [_{CP}Nork ere huts egiten bait-du], (*eta) ez dut ezagutzen
 who-E ere mistake doing bait-AUX and NEG AUX-1SG know
 [_{DP}] (*eta) hura zigortuko du.en] gizon.a].
 and that punish-PROSP AUX-en man-SG
 lit. '[Who makes a mistake], I don't know [the man [who would punish him]].'

These facts seem compatible with an analysis according to which bait-relatives occupy a position which is made available with the help of a coordination phrase, headed by eta, as in (61):

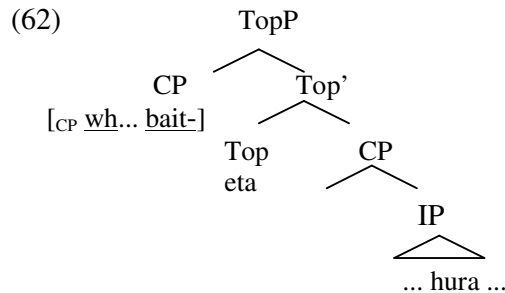
- (61)
-
- ```

 graph TD
 &P --> CP1[CP]
 &P --> &'[&']
 CP1 --> CP1_content["[CP wh... bait-]"]
 CP1 --> &[&]
 &' --> &[&]
 &' --> CP2[CP]
 & --> eta[eta]
 CP2 --> IP[IP]
 IP --> hura["... hura ..."]

```

This could serve as a variant of the adjunction account: the bait-relative is not adjoined to the main CP, but "coordinated" to it. The advantage of this account is that it can immediately explain why such structures are only available with relatives that are CPs: since the matrix clause is a CP, too, the Law of Coordination of Likes only allows CPs to be coordinated to it.

Another way of analyzing eta would be to treat it as the head of a functional projection in the left periphery rather than a true coordinator element. As correlative clauses are topics, eta in our view has been grammaticalized into a Topic head in correlative constructions:



Due to space limitations, we do not spell out arguments that show that (62) fares better than (61). For these arguments, as well as more discussion on the syntactic distribution of eta, we refer the reader to Rebuschi and Lipták (to appear).

## 6. Summary of findings

The aim of this paper was to provide the basic description and analysis of Northern Basque free relatives and their occurrence in correlative constructions. It was shown that the two types of free relatives differ in category: one type is clearly a CP, the other type is clearly a DP externally. Next, we have demonstrated that the two types have different syntactic properties when they occur in the correlative pattern, preceding their pronominal associate. The most remarkable difference concerned locality properties in complex clauses, which pointed to a difference in the fine structure of the two constructions. On the basis of these facts it was concluded that DP-correlatives share properties of left dislocations, while CP-correlatives bind their associate from the position where they are merged into the structure.

These results are compatible with the finding that in the complex sentential domain both MERGE and MOVE can be involved in the placement of correlative clauses (Bhatt 2003), even within one and the same language. The Northern Basque facts evidence that choice between MERGE and MOVE can be determined by the syntactic category of the correlative clause.

These findings are important both from a theoretical and a typological point of view.

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