

Weather expressions in Basque

A typological perspective

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We make two claims regarding weather expressions in Basque: first, based on Eriksen et al.'s (2010) typology, we show that Basque tends towards the argument type (and less frequently so to the predicate-argument type) when coding dynamic (precipitation or other) events and to both the argument and the predicate type when coding static events; Basque often has transitive structures (i.e. both transitive predicate and argument transitive types), apparently a rare typological feature. Second, with respect to two key issues in the study of weather predicates within Generative Grammar, we claim (a) that Basque supports the view that both lexicalizations of weather verbs (unaccusative and unergative/transitive) are possible across languages, as argued by Bleotu (2015) and Levin & Krejci (2019); and (b) that the empty *pro* subject of Basque transitive weather constructions is closer to a quasi-argument (Chomsky 1981, Levin & Krejci 2019) rather than to a true expletive.

Keywords: Basque, weather, grammar, typology, syntax

1 Introduction

Although works that combine linguistic typology and grammar to analyze weather expressions are numerous in other languages, to date this type of essay has not been carried out with respect to

Basque. In this article we seek to fill that gap and make a thorough description of Basque weather expressions from a cross-linguistic perspective and show that the linguistic features displayed by them certainly match many of those argued for other languages; these features include finding verbal predicates with both an accusative and an unergative trait, the lack of explicit lexical subjects in many cases, or finding subjects that superficially seem to (yet need not) be expletives (French *il*, English *it*, German *es*, Icelandic and Faroese *hann*). We also hope to make it clear that the scarcity of regular lexical subjects in Basque weather expressions has to do with the typical syntactic features of weather expressions (Eriksen et al. 2015); nevertheless, Basque empty subjects of many weather predicates behave clearly as (possibly animate) quasi-arguments, not mere expletives. Hopefully, this overall and novel description and subsequent discussion will shed light on the real grammatical nature of meteorological expressions in general and will help to avoid the partial use of Basque data to make claims that seem too strong or unfounded (cf. Fernández Soriano 1999, Alba-Salas 2003).

We have structured the article as follows. Section 2 reviews the typological approach to weather expressions developed in Eriksen et al. (2010, 2012), whereas Section 3 first describes weather expressions in Basque and then explains where and how Basque fits in the typological picture. Section 4 focuses on two aspects of weather expressions that have attracted some attention in the generative tradition, viz. the lexical nature of weather verbs (whether they behave as unaccusative or unergative) and the nature of their subject (whether it should be regarded as a mere expletive or as quasi-argumental). Section 5 will tackle the issue of how Basque can contribute to these two issues. The final section is a recapitulation of the main findings.

2 Weather expressions and linguistic typology

In this section we go over Eriksen et al.'s work (with special focus on their 2010 article) on the typology of weather expressions; we shall discuss the place of Basque within that typology in Section 3. For convenience, we shall henceforth refer to Eriksen et al. as EKK.

In a somewhat ground-breaking article, EKK (2010) make a general overview of weather expressions based on data from 25 languages and sketch an account of the linguistic typology of weather expressions, as well as a typological classification of languages with respect to weather expressions. In EKK's (2010: 569) view, the main linguistic feature of weather expressions is the lack of true participants or arguments: sometimes those alleged arguments are close to cognate objects (cf. Spanish *llover una lluvia fina* 'to rain a light rain') or they are simply unspecific, as though their true participant were the weather event itself; or they have a semantic role that is hard to pinpoint or define. The main consequence of this is that weather expressions are often expressed by means of a sole predicate with no argument; and that, even when the alleged arguments (the sky, the clouds) appear, they do not display the usual pragmatic characteristics of plain arguments. Occasional mention of divinities is limited to certain cases made possible by religious beliefs, but the overall situation regarding weather expressions would be their impersonal character.

With respect to the typology of linguistic expressions, EKK make a three way distinction depending on whether the weather phenomenon in question is expressed by the predicate, by the argument, or by a mixture of the two, as we can see in Table 1.¹

¹ The further division of the predicate type into more subtypes may get more sophisticated depending on the type of predicate, which need not be only a verb, but can also be an adjective, a noun, or an adverb.

Table 1. Adapted schema of typology of meteorological expressions (EKK 2010: 571)

Predicate type	Valency variation: Atransitive type Expletive type Intransitive predicate type Transitive predicate type
Argument type	Intransitive argument type Existential type Transitive argument type
Argument-predicate type	Cognate type Split type

In the predicate type, it is mainly the predicate itself which expresses the meteorological event and EKK propose the following classification in terms of the valency of the predicate:

A. Atransitive type. The predicate is the only element, with the copula in some languages, and there is no explicit argument.² This is what Mettouchi & Tosco (2011: 315) call the total backgrounding of the entity in their account:

ITALIAN

- (1) a. È *freddo*
 be.3SG.PRS cold.M
 ‘It is cold’

² It is worth mentioning that the languages (Italian, Latin, Serbian, Tukang Besi) which EKK (2010, 2012) mention in the atransitive type are *pro-drop* and, thus, there might be a *pro* expletive subject in the relevant weather expressions. In a later work (EKK 2015), they do mention that the lack of subject in the atransitive type and the *pro-drop* phenomenon are separate issues. In our opinion, they fail to be convincing since the only example they provide (from Aleutian) is far from clear.

TUKANG BESI

b. *No-wande*

3R-rain(=PRF)

'It is raining'

(M. Donahue, p.c.; data from EKK 2010: 572)

B. Expletive type. Here the formal subject is a non-referential element:

DANISH

(2) a. *Der er koldt udenfor*

There be.PRS cold.N.SG outside

'It is cold outside.'

FAROESE

b. *Hann kavar*

he snow.PRS

'It is snowing.'

(ibid: 573-4; Faroese data from Thráinsson et al. 2004: 287)

As in Faroese, the expletive pronoun need not be neutral; it can be a personal pronoun. According to EKK, the expletive type is a feature of Northern Europe, but infrequent elsewhere.

C. Intransitive predicate type. In this type, the subject is a regular noun, which may have a locative, temporal or atmospheric interpretation. We provide an example of the first kind:

PALESTINIAN

(3) *id-dunya ti-shti*

ART-world 3F.SG-rain.IPFV

'The world is raining.'

(Givón 2001: 119; in EKK 2010: 575)

D. Transitive type. In this type, the weather verb would have an agent-patient argument frame:

Finnish

- (4) *kun harmaa taivas alkoi vihmoa vettä*
 when gray.NOM sky.NOM start.PST.3SG drizzle water.PART
 ‘when it started to rain from the gray sky’ (ibid: 578)
 (lit.: ‘when the grey sky started to drizzle water’)

In the argument type, the argument describes the meteorological event and the predicate is usually a light verb. Three subtypes can be distinguished: the intransitive – with a light verb (5a) –, the existential (5b) and the transitive (5c):³

KOREAN

- (5) a. *Pi-ka / nwun-i / wupak-i o-nta*
 rain.NOM / snow.NOM / hail.NOM come-PLAIN.IND
 ‘It is raining/snowing/hailing.’ (Jae Jung Song, p.c.)

GUNGBE

- b. *Akpɔkpɔ tin*
 cloud exist
 ‘There are clouds. / It is cloudy.’ (Enoch Aboh, p.c.)

³ The first one is what Mettouchi & Tosco (2011: 313) call “partial backgrounding of the process” and the second is what they refer to as “total backgrounding of the process” (Mettouchi & Tosco 2011: 315).

NORTHERN AKHVAKH

c. *Mili-de gōbwel-āri duna.*

sun-ERG illuminate-PRF world

‘The sun is shining’ (lit. ‘The sun is illuminating the world’) (D. Creissels, p.c.)

(all data from EKK 2010: 581-3)

The transitive argument type is, according to EKK (2010), very rare cross-linguistically due to the general absence of true arguments in weather expressions and, in practice, hard to differentiate from the argument-predicate split type.⁴

Finally, in the argument-predicate type, the expression of the weather event is divided between the predicate and the argument. There, too, EKK propose a further subdivision: in the cognate type, the argument and the predicate refer to the same event:⁵

TOQABAQITA

(6) *Thato e thato*

sun 3SG.NFUT (sun)shine

‘The sun is shining.’ (F. Lichtenberk, p.c.; EKK 2010: 584)

In the split type, however, the argument and the predicate refer to a different aspect of the weather event:

⁴ EKK mention that arguments in (5c) and the like stand foremost to code the meteorological expression, whereas in the argument-predicate type both (i.e. arguments *and* verb) refer to the weather event.

⁵ This is “global apprehension” in Mettouchi & Tosco’s (2011: 315) terms.

ROMANIAN

(7) *Plouă cu grindină*

rain.3SG with hail

‘It is hailing.’ (lit.: ‘It is precipitating with hail.’)

(Andrea Dumitresc, p.c.; EKK 2010: 585)

After sketching a first typological approach to the different weather expressions, EKK go on to propose a typology of languages from different perspectives: all languages have noun phrases or expressions of the argument type to refer to weather events; the predicate type may change from language to language; finally, for reasons yet to be determined, whilst precipitation events tend to be of the argument type, temperature events have a tendency for the predicate type, “unless they do it through NPs such as *heat* or *cold*” (EKK 2010: 588).

With regard to the coding of precipitation, EKK claim that there is a wide range of variation among languages: one finds languages that code precipitation through the argument type (Russian); there are languages in the middle that use the argument-predicate for precipitation events (Finnish, where the original movement verb *sataa* ‘to fall’ has specialized as a general precipitation verb); and, finally, there are languages which code precipitation via the predicate type (Romance and Germanic languages). In any case, EKK’s working hypothesis is precisely that, if there is a diachronic change, it will be exactly in that direction: from the argument type to the predicate type.

Finally, EKK (2010) also mention two more parameters or overall tendencies among the languages studied: if a language picks the predicate type, it will generally do so in a uniform way; for example, that is the case of Germanic languages, where the expletive type has generalized. The second parameter, already mentioned in passing, is that temperature events tend to hold on to the

predicate type, whereas the coding of precipitation shows much more variation from language to language.

In a later work, EKK (2012) strive to provide a more fine-grained typology of weather events and to connect that typology, even if in a preliminary way, with language typology: they establish a distinction between dynamic events (precipitation events and those without such as lightning, wind and the like) and static events (temperature, atmospheric and light conditions, sunshine). As in their previous work, they mention that languages tend to choose a unique coding when it comes to precipitation events, which need not follow in the rest of dynamic events; with respect to static events, most languages tend towards the predicate type and variation among languages seems to concentrate on the choice of the predicate subtype each language makes.

3 The place of Basque weather expressions in linguistic typology

3.1 A description of Basque weather expressions

With the exception of Etxepare (2003: 377ff) there is little mention of weather predicates and expressions in Basque grammar. In this section we aim at providing a short and clear sketch of weather expressions that will be the basis for assessing Basque within EKK's typological account; furthermore, this sketch will lay the ground for the discussion of several grammatical aspects in Section 5. We have attempted a thorough compilation of Basque meteorological expressions; the data are either taken from Basque literary sources (cf. the Contemporary Dynamic Prose corpus) or made up examples.

Following a formal approach to this sketch, one can distinguish the following syntactic constructions for weather expressions in Basque:

- (8) a. Simple verbs: *leitu* ('freeze'), *argitu* ('clear'), *ilundu* ('darken'), *gautu* ('become night'), *atertu* ('clear up, stop precipitating'), *hoztu* ('cool'), *epeldu* ('warm up'), *lainotu* ('become cloudy'), *lanbrotu* ('become foggy') ...
- b. DP + copula (*izan* 'be'):⁶ {*euria* ('rain') / *elurra* ('snow') / *kazkabarra*, *txingorra* ('hail') / *langarra* ('thin fog') / *izotza* ('ice') ...} *da* (is).
- c. Noun / Adjective + copula (*egon* 'be, stay'): *sargori dago* ('it is muggy') / *ilun dago* ('it is dark') / *hotz dago* ('it is cold') / (*zerua*) *oskarbi dago* ('(the sky) is clear') / *lainotuta dago* ('it is cloudy') ...
- d. DP + progressive verb (*ari* with transitive auxiliary): {*euria* / *elurra*...} *ari du* (it is {raining/snowing}).
- e. DP/bare noun⁷ + light verb (*egin* 'do/make'): {*euria* / *elurra* / *hotz* / *bero* ...} *egiten du* (it is {raining/snowing/cold/hot...}), *ostots egin du* (it has thundered)
- f. DP + lexical verb (*mugitu* 'move') / *ibili* ('walk') / *altxatu* ('rise, raise') / *zabaldu* ('extend, open') / *ekarri* ('bring') ...: *euria mugitu du* ('it has started raining'; lit.: 'it has moved rain') / *haizea dabil* ('it is windy'; lit.: 'wind is walking/moving') / *haizea altxatu da* ('the wind has started to blow'; lit.: 'wind has risen') / *eguna zabaldu du* ('it has dawned'; lit.: 'it has opened the day') / *euria dakar* ('it is going to rain'; lit.: 'it brings rain') ...

⁶ In Basque we find two verbs corresponding to English *to be*; one of them (*izan* 'be') indicates a permanent state, and it is used like auxiliary in intransitive constructions, too. The other one (*egon* 'be, stay') indicates a temporal state in the Western and Central dialects; Eastern dialects may use *izan* as copula for both permanent and temporal states.

⁷ As we shall see (cf. examples 15a-b-c, 26a-b), a full DP is more common with precipitation events and a bare noun more common with temperature events, but the two possibilities exist for both types of events.

We proceed to a preliminary analysis based on (8) by distinguishing intransitive and transitive structures. It should be pointed out that all verbs mentioned in (8) are common outside their use in meteorological expressions.

3.1.1 *Weather expressions with intransitive verbs*⁸

Even though most of the verbs in (8a) take the transitive auxiliary, according to Sarasola (2007) some may also take the intransitive auxiliary *izan* ‘be’, including *argitu* ‘clear’, *ilundu* ‘darken’ or *gautu* ‘become night’:

- (9) {*egun-a* / \emptyset } *argitu* / *ilundu* / *gautu da*.
 day-ART.SG / \emptyset clear.PFV/ darken.PFV / become.night.PFV be.AUX.PRS.3SG
 ‘{The day / it} has cleared / darkened / become night.’

As can be seen in (9), the lack of overt subject may alternate with a lexical one.

Similar considerations regarding the auxiliary apply to expressions with the verb *egin* ‘do, make’; even though most of them are of transitive shape: *euria egin du* ‘it rained’ (literally: ‘it has made rain’), *egin* can nevertheless be used intransitively with the meaning ‘become, get’:

- (10) *Gau-a egin da*.
 night-ART.SG do.PFV be.AUX.PRS.3SG
 ‘It has become night.’

⁸ Basque shows ergative alignment; however, some authors (Levin 1983; Aldai 2006, 2009; Igartua 2020) propose that, in fact, Basque is an active language (or has a semantic alignment or a split-S system); there are some dialectal differences, too (see Berro & Etxepare 2017 for a summary). Anyway, all intransitive structures presented here with the auxiliary *izan* ‘be’ are unaccusative (and take part in the inchoative-causative alternation), so the debate of whether Basque is truly an ergative or just active language is irrelevant for the discussion ahead.

With respect to structures with copulative verbs, there is little doubt about the intransitive nature of these; for example, that is the case of DP + *izan* ‘be’ (cf. 11) and of Noun/Adjective + *egon* ‘stay, be’ structures (cf. 12):

- (11) *Euri-a da.*
rain-ART.SG be.PRS.3SG
‘It is raining.’ (lit.: ‘is rain.’)

- (12) a. *{Hotz, ateri} dago.*
cold clear stay.PRS.3SG
‘It is {cold, clear}.’

- b. *{Zeru-a / Ø} oskarbi dago.*
sky-ART.SG / Ø sky.clear stay.PRS.3SG
‘{The sky / it} is clear.’

But intransitive weather expressions of the type [DP V] are not limited to copular sentences, as some of the expressions in (8f), repeated here for convenience, show:

- (13) a. *Haize-a dabil.*
wind-ART.SG walk.PRS.3SG
‘The wind is blowing.’
- b. *Haize-a altxatu da.*
wind-ART.SG rise.PFV be.AUX.PRS.3SG
‘The wind has risen up.’

3.1.2 Weather expressions with transitive verbs

Many weather expressions are based on transitive verbs. First of all, there are (what appear to be) plain transitive verbs, in view of the transitive auxiliary **edun* ‘have’; among them are verbs like *argitu* ‘clear, brighten’, *ilundu* ‘darken’, *gautu* ‘become/ make night’ already mentioned in (8a). Occasionally, these verbs may have a regular direct object (i.e. 14b-c):

- (14) a. *Asko argitu / ilundu / hoztu du.*
 much lighten.PFV / darken.PFV / cool.PFV have.AUX.PRS.3SG
 ‘It has brightened / darkened up / cooled a lot.’

- b. *Egun-a argitzen du-enean erakutsiko*
 day-ART.SG lighten.IPFV have.AUX.PRS.3SG-when show.FUT
dizut.
 have.AUX.2SG.DAT.PRS.3SG

‘I will show it to you when the day breaks’ (lit: ‘... when it breaks the day’)

(Bernardo Atxaga, *Etxeak eta hilobiak*, 2019: 108)

- c. *(Arratsalde-a) gautu du.*
 evening-ART.SG make.night.PFV have.AUX.PRS.3SG
 ‘Night has fallen.’ (lit.: ‘It has made (the evening) night.’)

- d. *Leitu du gau-ean.*
 freeze.PFV have.AUX.PRS.3SG night-LOC.SG
 ‘It froze at night.’

Another typical structure in Basque weather expressions is that formed with the verb *egin* ‘do, make’:

- (15) a. *Euri-a egin du.*
rain-ART.SG do.PFV have.AUX.PRS.3SG
‘It rained.’ (lit.: ‘It made rain.’)
- b. *Elur asko egin zuen bart.*
snow much do.PFV have.AUX.PST.3SG last.night
‘It snowed a lot last night.’ (lit.: ‘It made much snow last night.’)
- c. *Hotz handi-a egingo du gaur.*
cold big-ART.SG do.FUT have.AUX.PRS.3SG today
‘It will be very cold today.’ (lit.: ‘It will make a big cold today.’)

But, beyond this typical verb, other transitive verbs are commonly used with weather expressions, as the examples in (16) (cf. also 8f above intend to show:

- (16) a. *Euri-a mugitu-ko du laster.*
rain-ART.SG move-FUT have.AUX.PRS.3SG soon
‘It will start to rain soon.’ (lit.: ‘It will move the rain soon.’)
- b. *Haize zakarr-a altxatu du.*
wind rough-ART.SG rise.PFV have.AUX.PRS.3SG
‘It has raised a rough wind.’

c. *Zaparrada ederr-a bota zuen atzo.*
 shower nice-ART.SG throw.PFV have.AUX.PST.3SG yesterday

‘There was a big rain shower yesterday.’ (lit.: ‘It threw a big rain shower yesterday.’)

d. *Euri-a dakar.*
 rain-ART.SG bring.PRS.3SG

‘It is going to rain.’ (lit.: ‘It is bringing rain.’)

One of the most curious transitive patterns is provided by the progressive verb *ari* ‘be engaged in’. In most varieties of Basque and, certainly in Standard Basque, this grammatical verb takes the intransitive auxiliary (cf. 17a);⁹ however, those speakers which take the intransitive auxiliary generally take the transitive auxiliary when the complement of the verb is a kind of precipitated substance (cf. Etxepare 2003, Ortiz de Urbina 2003). Admittedly the intransitive auxiliary option is also a possibility in written Basque according to the Basque General Dictionary; a similar variation pattern is found with another aspectual verb, namely with *hasi* ‘start’:

(17) a. *Jon liburu-a irakurtzen ari da.*
 Jon book-ART.SG read.IPFV PROG be.AUX.PRS.3SG
 ‘Jon is reading the book.’

(cf. **Jon(-ek) liburu-a irakurtzen ari du.*)
 Jon(-ERG) book-ART.SG read.IPFV PROG have.AUX.PRS.3SG

⁹ It is true, however, that for some speakers in Northern dialects *ari* has become a simple progressive functional particle with no effect in auxiliary selection; see Laka (2006) on this.

b. *Euri-a ari du / da.*

rain-ART.SG PROG have.3SG / be.PRS.3SG

‘It is raining.’

c. *Euri-a hasi du / da.*

rain-ART.SG start.PFV have.AUX.3SG / be.AUX.PRS.3SG

‘It started to rain.’ (lit.: ‘It started the rain.’ / ‘The rain started.’)

Based on what we have said so far, and looking into the different verbal expressions for weather, we have attempted a summary chart in Table 2, which is meant to be rather exhaustive.

Table 2. Summary of weather expressions in Basque

Transitivity	Structure	Example	#
Weather expressions with intransitive appearance	Expressions based on a simple verb	<i>Gautu da.</i> 'It has become night.'	(9)
	[DP + <i>izan</i> ‘be’] structures	<i>Euria da.</i> 'It is raining.'	(11)
	[N/Adj + <i>egon</i> ‘be, stay’] structures	<i>Hotz dago.</i> 'It is cold.'	(12a)
	DP + change of state expressions	<i>Gaua egin da.</i> 'It has become night.'	(10)
Weather expressions with transitive appearance	Complex predicates based on <i>egin</i>	<i>Euria egin du.</i> 'It has rained.'	(15a)
	Most weather expressions based on a single verb (occasionally with direct object)	<i>(eguna) argitu du.</i> 'It has brightened (the day).'	(14a & b)
	Expressions with the verb <i>ari</i>	<i>Euria ari du.</i> 'It is raining'	(17b)
Verbs that may alternate between transitive or intransitive depending on the dialect	Some expressions based on a single verb	<i>Ilundu du / da.</i> 'It has darkened.'	(9 vs 14a)

With this classification in mind, we shall now go back to assess EKK's typological approach. Later on (in Section 5), we shall discuss how the Basque patterns may help clarify some theoretical issues in the realm of weather predicates.

3.2 The place of Basque within EKK's typology

Basque goes for the argument type as far as the precipitation events of the sort exemplified in (18) below are concerned, even though, at first sight, these are similar to what EKK call the attransitive type:

- (18) [{*huri-a* / *elurr-a*, / *txingorr-a* }]DP *da*.
 rain-ABS.SG / snow-ART.SG / hail-ART.SG be.PRS.3SG
 'It is raining / snowing / hailing.'

That is to say, it is mainly the noun phrase that codes the precipitation event, along with the copula *izan* 'be'. The grammatical analysis of this structure might be dubious at first sight: one might interpret it as a predicative statement of the type 'X is rain', with a null subject and the DP coding precipitation as some sort of individual-level predicate; or, alternatively, one might take it as some sort of existential structure. However, the fact that predicative DPs, contrary to argumental DPs present in existential constructions, cannot take the partitive polar determiner serves as a reliable test. The DP present in (18) and the like behave exactly as arguments, not as predicates, as one can infer by looking at (19a-b) with *euria* changing to *euririk* with the partitive in negative statements and yes/no questions:

- (19) a. *Goiz-ean euri-a izan da baina orain*
 morning-SG.LOC rain-ART.SG be.PFV be.AUX.PRS.3SG but now
arratsalde-a-n ez da euri-rik.
 afternoon-SG-LOC NEG be.PRS.3SG rain-PART

‘It rained this morning but now in the afternoon it is not raining.’

(lit.: ‘there was rain this morning but there is not any rain now in the afternoon.’)

- b. *Euri-rik izan da maiatz oso-an aurten?*
 rain-PART be.PFV be.AUX.PRS.3SG May entire-SG.LOC this.year

‘Has it rained in May this year?’ (lit.: ‘Has there been any rain in May this year?’)

Consequently, (18) and the like appear to be an argument-type construction of the existential type.¹⁰

When the precipitation event is expressed with the verbs *egin* ‘do, make’ and *ari* ‘be engaged in’, Basque is again resorting to the argument type in as much as these are light verbs. The problem is that, contrary to what EKK’s (2010) account foresees, in Basque these expressions have a transitive appearance but without an overt subject:

¹⁰ We are dealing with an archaic expression of sorts, because present day Basque uses different strategies to yield existential constructions. According to Etxeberria (2012: 88ff), Basque existential sentences resort to either the emphatic affirmative particle *ba-* (which resembles expletive subjects like English *there* or French *il*) in sentence initial position in Eastern (more conservative) dialects or they are formed using a locative inversion structure with the copula *egon* ‘be, stay’, typical in Central and Western Basque:

(i) a. *Ba-da euli bat zopa-n.* b. *Zopa-n euli bat dago.*
 yes-be.PRS.3SG fly one soup.SG-LOC soup.SG-LOC fly one stay.PRS.3SG
 ‘There is a fly in the soup.’ ‘There is a fly in the soup.’ (Etxeberria 2012: 87)

Precipitation examples like (18) use the older copula *izan*, but without the expletive *ba-*.

- (20) a. [{*euri-a* / *elurr-a,* / *txingorr-a*}]_{DP} *egin du.*
 rain-ART.SG / snow-ART.SG / hail-ART.SG make have.AUX.PRS.3SG
 ‘It rained / snowed / hailed.’ (lit.: ‘it made rain, snow, hail’)
- b. [{*euri-a* / *elurr-a,* / *txingorr-a*}]_{DP} *ari du.*
 rain-ART.SG / snow-ART.SG / hail-ART.SG PROG have.AUX.PRS.3SG
 ‘It is raining / snowing / hailing.’ (lit.: ‘it is engaged in rain, snow, hail’)

As a matter of fact, as we anticipated in the previous section (3.1), Basque weather expressions with *ari* more often than not use the transitive auxiliary **edun* ‘have’ even for those speakers who use the intransitive auxiliary with this verb. Since Basque is a pro-drop language, it is not clear whether the null subject should be considered an expletive or not; if we consider the empty subject argumental, we would have the transitive argument type, which, according to EKK (2010: 583), is rare cross-linguistically.¹¹ In Section 4.2, we shall return to the issue of the null subject in transitive constructions.

Within precipitation events, we find another group of expressions that seem closer to the argument-predicate split type in as much as the verb and the argument “encode[s] a different facet of the event” (EKK 2010: 584); these are the ones mentioned in (8f) and (16) above:

¹¹ In their work, EKK (2012: 390) point out that in the transitive argument type “the sentences do not refer to two distinct participants, agent and patient, like prototypical transitive sentences do”. So transitivity is more apparent than real.

(21) a. [{*huri-a* / *elurr-a,* / *txingorr-a*}]_{DS} {*bota* / *mugitu*}
 rain-ART.SG / snow-ART.SG / hail-ART.SG throw / move
du.

have.AUX.PRS.3SG

‘It {precipitated/ barely started to} rain / snow / hail.’

b. [{*huri-a* / *elurr-a,* / *txingorr-a*}]_{DS} *dakar.*

rain-ART.SG / snow-ART.SG / hail-ART.SG bring.3SG.ERG

‘It is going to rain / snow / hail.’

Here, one can hardly defend that the verbs are light and without meaning, burden or contribution: *bota* ‘throw’ (with a meaning equivalent to *egin* in example 20a), *mugitu* ‘move’ (with the meaning ‘start to precipitate’), *ekarri* ‘bring’ are bona fide movement verbs and it seems that the first two roughly mean ‘precipitate’ and that the third one takes the meaning ‘foresee X type of precipitation’. In that respect, these are good candidates for EKK’s split type.

In principle, modern standard Basque lacks precipitation verbs as such; these are only found in the Navarrese-Lapurdián dialect:¹²

(22) *Egun hondarr-ean [e]uritu du*

day end-SG.LOC rain have.AUX.PRS.3SG

‘It rained at the end of the day’

(Zuazo 2018: 301)

¹² And, according to Larrasquet’s (1939) little known dictionary, possibly in the Souletin dialect, too. This datum requires further confirmation; we thank K. Zuazo (p.c.) for bringing this dictionary to our attention.

But these lexical verbs are restricted to just *euritu* ‘%to rain, cover with rain’ and *elurtu* ‘%to snow, cover with snow’, which are not precipitation verbs in Standard Basque; we will go back to this issue in Section 5.

Regarding non-precipitation dynamic events such as wind, lightning and so on (EKK 2012), we find the split argument-predicate type (cf. 23a), at least with *haize* ‘wind’:

- (23) a. *Haize-a dabil. / haize-a atera du.*
 wind-ART.SG walk.3SG.PRS / wind-ART.SG take.out have.AUX.PRS.3SG
 / *haize-a jaiki da.*
 / wind-ART.SG rise.PFV be.AUX.PRS.3SG

‘The wind is blowing.’ / ‘It has taken out the wind.’ / ‘The wind has risen.’

- b. **Haize-a da, %haize-a {egin / ari} du* (argument type)
 wind-ART.SG be.3SG wind-ART.SG do.PFV / PROG have.AUX.PRS.3SG
 / *#haizatu du.* (predicate type)¹³
 / spread.PFV have.AUX.PRS.3SG

‘There is wind, it has made wind’ / ‘it has winded’

Nevertheless, with *trumoi* ‘thunder’ and *tximista* ‘lightning’ Basque also resorts to the argument type (24b), as well as to the split argument-predicate type (cf. 24a):

¹³ The verb *haizatu* from *haize* ‘wind’ exists in Basque; however, it does not mean ‘to wind’, but ‘to spread through the air, aerate/insufflate, destroy’; in other words, it has no connection with the weather.

(24) a. *Tximista erori da / Trumoi-a(-k)*
 lightning.ART.SG fall.PFV be.AUX.PRS.3SG / thunder-ART.SG(-ERG)
jo du.
 hit.PFV have.AUX.PRS.3SG.ERG
 ‘A lightning has fallen.’ / ‘It struck a thunder.’ / ‘A thunder struck.’

b. *Trumoi-a eta tximistak izan dira /*
 thunder-ART.SG and lightning.ART.PL be.PFV be.AUX.PRS.3PL /
Tximista eta trumoi-a ari zuen.
 lightning.ART.SG and thunder-ART.SG PROG have.AUX.PST.3SG
 ‘There have been thunder and lightnings.’ / ‘It was making lightning and thunder.’

This being so, one of EKK’s (2012) expectation is not borne out: Basque codes non-precipitation dynamic events in pretty much the same way it codes precipitation dynamic events, even though the verbs used in the split type for each kind of expression need not coincide (*bota* ‘throw’, *mugitu* ‘move’ [precipitation] vs *jo* ‘hit’, *erori* ‘fall’, *altxatu* ‘rise, raise’ [non-precipitation]).

Leaving dynamic events aside, the notion of “a structure whose only element is a predicate with no argument” fits the range of expressions presented in (8c), given that the EKK expressly mention the choice of copula (EKK 2010: 572):

(25) {*oskarbi / ilun / ateri / sargori / hotz*} *dago.*
 clear / dark / clear / muggy / cold stay.PRS.3SG
 ‘It is {clear / dark / clear / muggy / cold}’

This kind of example certainly matches EKK’s (2012: 391) static events (temperature and atmosphere-light conditions). Here a bare noun or adjective (with the help of the copula)

constitutes the spine of the weather expression (atransitive type); there remains a doubt because of the pro-drop feature of Basque: in the expression *oskarbi dago* ‘it is clear’, there could be another *pro* subject. As a matter of fact, even though the expression is most common with no lexical subject, sentences like *zerua ilun/oskarbi dago* ‘the sky is dark/clear’, *eguna hotz dago* ‘the day is cold’ are perfect and common (cf. 12b).

Other expressions that have to do with temperature events, on the other hand, do follow the argument type and use the light verb *egin* ‘do’ once more:

- (26) a. {*Hotz* / *bero*} *egiten du.*
 cold / hot do.PROG have.AUX.PRS.3SG
 ‘It is cold / hot.’ (lit.: ‘it makes cold / heat’)
- b. {*Hotz* / *bero*} *handi-a egiten du.*
 cold / hot big-ART.SG do.PROG have.AUX.PRS.3SG
 ‘It is very cold / hot.’ (lit.: ‘It makes a big cold/hot.’)

In other words, with temperature events Basque also resorts to the same pattern used for coding precipitation, even though a bare noun phrase with no article is the preferred option in the absence of adjectives.¹⁴

Finally, although EKK (2010) do not explicitly mention the expressions related to temperature- or weather-changes or those related to the change within day moments, a short explanation is in order: those are coded by verbs, so that we find the predicate type:

¹⁴ But the option with the article is also common:

(i) *hotz-a egiten du, ez-ta?*
 cold-ART.SG do-IPFV have.AUX.PRS.3SG, not-is
 ‘It is cold, isn't it?’ (K. Miner, *Nola heldu naiz ni honaino*, 2017: 27)

- (27) a. {*Hoztu* / *atertu...*} *du*.
 cool.PFV / clear up.PFV have.AUX.PRS.3SG
 ‘It has cooled.’ / ‘It has cleared up.’
- b. {*argitu* / *ilundu*} *du*.
 clear.up.PFV / darken.PFV have.AUX.PRS.3SG
 ‘It cleared up.’ / ‘It darkened.’
- c. {*egun-a* / *eguraldi-a*} {*argitu* / *ilundu*
 day-ART.SG / weather-ART.SG clear.up.PFV / darken.PFV
du.
 have.AUX.PRS.3SG
 ‘The day / the weather cleared up / darkened.’ (lit.: ‘it cleared up / darkened {the
 day / weather})
- d. {*egun-a* / \emptyset } *gautu da*.
 day-ART.SG / \emptyset night.PFV be.AUX.PRS.3SG
 ‘The day / it has gone dark.’

Since most of these verbs take the transitive auxiliary **edun* ‘have’, it seems that we have the expletive type or – in the case of (27c) – the transitive and expletive, if we accept that there is a formal subject. But, of course, some verbs also accept the intransitive auxiliary *izan* ‘be’ (=27d), in which case, the alleged *pro* subject would alternate with a true argument (and, thus, we would have either the expletive type or the intransitive one).

Table 3. Correspondence between weather events and linguistic types in Basque

Weather event type	Linguistic type	Relevant example
Precipitation events	[existential & transitive] argument type argument-predicate split type	(18), (20) (21)
Non-precipitation dynamic events	[existential & transitive] argument type argument-predicate split type	(24b) (23a), (24a)
Temperature events	[?a-, ?in-transitive] predicate type [transitive] argument type	(25) (26)
Temperature, weather & day change events	predicate type	(27)

In short, as summarized in Table 3, if one takes EKK ‘s (2010, 2012) typology as departing point, Basque typically picks the argument type when it comes to precipitation events, even though this is not the only choice (the argument-predicate split type is also attested). With respect to temperature events, it uses both the predicate type (cf. *sargori, hotz dago* = 25) and the argument type (cf. *hotz (handia) egiten du* = 26). However, the predicate type is the only one when referring to change of temperature, weather or day moments. A very interesting issue arises from the study of formal subjects: for one thing, in expressions like *ilun dago* and similar in (25), do we have to assume that there is a formal subject? In principle, we will assume this is the case given that an empty *pro* subject alternates with a lexical subject referring to some background entity (i.e. day, sky, atmosphere). On the other side, in the case of alleged transitive predicates (which are possible across the board with all types of weather events), should we assume the existence of a formal subject? If so, what kind of features does such a subject have? We tackle this problem in 4.2 and 5 below.

4 Grammatical Theory and weather phenomena

We have already described the contribution made by the typology of weather expressions and the place that Basque takes in such typology. In this section, we will focus on two topics which have been discussed in the framework of the generative grammar: first, the unaccusativity or unergativity of weather expressions; second, the possibility that the subjects of weather verbs are not merely expletive.

4.1 The issue of unaccusative and unergative verbs

Ruwet's (1989, 1991) stands as the main advocate of an unaccusative structure for weather expressions, in contrast with many linguists who have argued for an alternation between the unaccusative and unergative structures, either cross-linguistically or language-internally: Beninça & Cinque (1992), Paykin (2002, 2003, 2010), Manente (2007, 2008), Bleotu (2012, 2013, 2015) and, finally, Krejci (2014) and Levin & Krejci (2019).¹⁵

Ruwet (1989, 1991) offers several arguments for his proposal, which include the auxiliary verb (a rather shaky argument given that both *essere* and *avere* are used in Italian), the possibility of unaccusative paraphrases and of extraposed subjects with weather verbs, the similarity of the pronoun *il* to other alleged unaccusative constructions, the possibility of causative alternation, the existence of cognate objects and the object/adverb alternation. We won't discuss them in detail here, but let us point out Paykin's (2003, 2010) critique of the last two arguments.

With respect to the cognate objects, Paykin (2010: 255) remarks that there is a near contradiction in Ruwet's analysis:

¹⁵ As far as we can tell, Levin & Krejci (2019) is a mere expansion of Krejci (2014); the only nuance is that, whereas the latter refers to weather *it* and weather expressions, the former is more precise in referring to just precipitation expressions and precipitation *it*. We cite the former work henceforth.

(28) a. *Il pleut une pluie froide.*

it rains a rain cold

‘It’s raining a cold rain.’

b. *Max vit une drôle de vie.*

Max lives a funny of life

‘Max leads a strange life.’

(Paykin 2010: 256)

Under Ruwet’s approach, the phrase *une pluie froide* (‘a cold rain’), which appears extraposed in (28a), would merge the structure as internal argument and then move to subject position (with further extraposition), because the main verb cannot assign it accusative case. But Paykin remarks that cognate objects take accusative case and, hence, do not move to the subject position. What is more, it is generally assumed that only unergative verbs take cognate objects (Levin & Rappaport Hovav 1995).

As regards the argument concerning adverbs, Paykin agrees with Ruwet that some noun phrases in weather expressions have semi-adverbial behavior expressing abundance. Such phrases can be replaced by adverbs denoting intensity, maintaining the sense of the sentence:

(29) *Il pleut {des cordes} / violemment.*

it rains some ropes voilently

‘It is raining cats and dogs/heavily.’

(Paykin 2010: 257)

But, according to Paykin (2010: 257), such alternation is lacking in unaccusative verbs:

(30) *Il est tombé {des feuilles/*abondamment}.*

it is fallen ART.PL leaves abundantly

‘There fell {leaves/*abundantly}.’

Thus, according to Paykin, Ruwet's claim that weather verbs are unaccusative is not solid. Her own conclusion is that weather verbs are far from being uniform cross-linguistically and suggests that they are avalent.

Benincà & Cinque (1992) focus on the Italian auxiliary verbs *essere* and *avere*: they suggest that weather verbs are unergative when they take *avere* but propose an analysis which implies analyzing weather expressions in the unaccusative version with *essere* as motion verbs. In the latter case, the complement of the verb would be a small clause, the subject of which moves to the main subject position:

(31) [DP_i [INFL [VP V [SC t_i PP_{loc}]]]]

Manente (2007) takes the same basic position as Benincà & Cinque (1992) and links the French subject *ça*, restricted to certain weather expressions (cf. *ça pleut* 'it is raining' / **ça fait beau* 'it's fine'), with an unaccusative structure; French verbs taking *il* as subject would be ambiguous between an unaccusative and an unergative interpretation.

More recently, Bleotu (2012, 2013, 2015) has analyzed weather expressions and verbs from the perspective of their lexical structure. According to this author too, weather verbs have an ambiguous behavior between unaccusative and unergative, both cross-linguistically and language-internally. Although she suggests that weather verbs are unaccusative from a semantic point of view (Bleotu 2013: 51), results become blurred when we apply the unaccusativity tests proposed by Levin & Rappaport Hovav (1995). Further evidence in favor of that ambiguity comes from Italian, where verbs can take both auxiliaries (Beninça & Cinque 1992).

According to Bleotu, there is further evidence that supports such an ambiguous behavior of weather predicates: a) weather verbs may take part in the causative alternation (cf. *God rained a heavy rain* / *it rained*); b) there exists cross-linguistic variation; and c) although in some cases

subjects of weather expressions lack any referential value (*pro* subjects and expletives), in some others subjects can be demonstratives, personal pronouns, or denote the source, background or substance of weather phenomena (Bleotu 2013: 49; cf. also EKK 2015). That ambiguity fits well with the fact that the weather verbs and predicates switch from unaccusative to unergative or causative.

Based on all these arguments and the conflation theory proposed by Hale & Keyser (2002), Bleotu (2012, 2013) suggests the following structures: (32a) for an unaccusative interpretation, and structure (32b) for unergative or causative interpretation.

- (32) a. [v it [v fall [N rain]]]
 b. [v it [v cause [v fall [N rain]]]]

In sum, weather verbs could be unaccusative or (underlyingly) transitive and the pronoun *it* itself would replace either the *theme* or the *cause* argument. Usual periphrases would have the same source, too:

SPANISH

- (33) a. *Hay nubes.*
 is clouds
 ‘There are clouds.’

ITALIAN

- b. *Fa freddo.*
 makes cold
 ‘It is cold.’

(Bleotu 2013: 51)

Lastly, we should mention Levin & Krejci (2019), who note that weather verbs (or rather, precipitation verbs) display the same pattern as substance emission verbs. Thus, unergative structures with subjects denoting the *source* theta-role alternate with unaccusative structures in which the subject is the emitted substance itself:

- (34) a. *The well gushed (oil).* c. *Oil gushed from the well.*
 b. *It rained (a light rain).* d. *A light rain rained from the dark sky.*

(examples from Levin & Krejci 2019: 10)

As it turns out, Levin & Krejci (2019) resort to the parallelism between precipitation verbs and substance emission verbs to assign the source theta-role to the subject of the former (in the unergative version) and, furthermore, to argue for its status as a true contentful element. So, the conclusion drawn by Levin and Krejci (2019) is that precipitation events at least can be construed either as unergatives with the source of emission as subject or as unaccusative with the substance of emission as subject.

To sum up, although Ruwet (1989, 1991) proposes an unaccusative structure for weather verbs, most authors (from Beninça & Cinque 1992 to Levin & Krejci 2019) agree on describing many of these verbs as unaccusative *and* unergative, depending on the morphosyntactic frame or the context in which they appear. Bleotu (2013, 2015) claims that weather predicates in general may show an ambiguous behavior, both cross-linguistically and language-internally.

4.2 The issue of the subject of weather expressions

EKK tackle the issue of subjects in meteorological expressions from a typological perspective in a separate article (EKK 2015) and reiterate some of the ideas pursued in their previous articles: given that weather predicates typically lack proper participants with clear theta-roles, their subjects

differ from prototypical ones and may range from simply being absent, to being expletive and non-referential, or to referring to some background entity taking part in the weather event. This approach is not free from exceptions or problematic cases: the alleged expletive pronouns used as subjects in some languages (Icelandic, Faroese, Hausa) are (unexpectedly so) human, not necessarily neuter; some languages also make a distinction between pure expletives and dedicated expletives for weather predicates. EKK (2015: 215) also speculate that “a human pronoun may have been picked to mime the agent-role semantics normally found in prototypical subjects”; another possibility mentioned by EKK is that human pronominal expletives may have arisen from conceptualizing some deity as the instigator of meteorological events.

This debate of the subject typology is highly reminiscent of a long standing generative discussion on the subjects of weather expressions, where we often find subjects that seem expletives (*it, il, ça, es, das*) yet have special features that distinguish them from typical expletives, or we get some sort of locative subject. We observe two main approaches to their analysis: one of them assigns a merely expletive value to the subject, devoid of any theta-role or interpretation (Ruwet 1991); defenders of the second approach claim that subjects of weather expressions are some kind of argument.

The bottom line is well known: according to Bolinger (1973), English pronoun *it* in weather expressions denotes some sort of “environment”, which Chomsky (1981) identifies with the pronoun’s ability to control an infinitival subject PRO:

(35) *It sometimes rains after* [PRO *snowing*]. (*it* = PRO)

For these subjects of weather expressions, Chomsky (1981: 325) proposes a *quasi-argument* status: *it* is non-referential but takes a thematic role, an *atmospheric* role according to Rizzi (1986: 528).

On the other hand, Ruwet (1991) finds no reason to distinguish between pronouns in subject

position of weather expressions and other expletive pronouns arguing that some subjects cannot control subordinate PRO unless they incorporate “the whole semantic content” of the main verb (Ruwet 1991:130).

Be it as it may, the thematic analysis of weather *it* (and weather subjects in general) has proved rather fruitful: Manente (2007) assigns the French pronoun *ça* a locative nature and links it to a change in the place or the situation where the described atmospheric event takes place. Additionally, she defends that Italian weather expressions taking the auxiliary *essere* imply a directional meaning and are similar to French structures taking the pronoun *ça* (Manente, 2007: 89; cf. Benincà & Cinque 1992 for a similar analysis).¹⁶

Interestingly, recent generative works on Spanish meteorological predicates such as Fernández Soriano (1999) and Fábregas (2014) have also proposed that these verbs have a true external spatio-temporal argument. According to the first author, a locative phrase materializes the spatio-temporal argument and is projected as part of the verb structure of all weather eventive predicates such as *llover* ‘to rain’, *amanecer* ‘to dawn’; in Fábregas’ view, the *llover* type of verb may have a locative subject but this is not part of the verb’s underlying argument structure, whereas the opposite is true in the case of the *amanecer* type.

More recently, Bleotu (2012: 78) analyzes the pronoun *it* of English weather expressions as a quasi-argument and distinguishes it from its expletive homonym. Bleotu claims that the quasi-argumental *it* merges in an internal position of the VP and the expletive one in a higher position outside the verbal domain, but both end up in [spec, TP] as a result of the EPP feature. Bleotu (2013: 55) proposes that those quasi-arguments behave like *cause* only in unergative structures

¹⁶ In that way, Manente suggests that *pro* subjects in sentences taking *essere* are locatives, too (and in so doing, she distinguishes them from *pro* subjects in sentences with *avere*). Manente (2008) leaves *ça* out of the discussion and refers to Italian *pro*, French *il* and English *it* as *cause* quasi-arguments.

and have a non-cause interpretation in unaccusative structures, so that the pronoun *it* of weather expressions' subject is assigned a special thematic role or semantic value, depending on the position it merges (whether it is [spec, v] or [spec, V]).

In the same way, Levin & Krejci (2019) provide a very good summary of the reasons for considering precipitation *it* close to an argument, in contrast with the expletive *it* of raising constructions:

A. Weather *it* can appear under control verbs, and control structures can impose semantic restrictions on subordinate subjects:

- (36) a. *It tried* [_ to rain] today but the sun came out.
 b. *It refused* [_ to rain].
 c. **It tried/refused* [_ to seem that Tracy jogged]. (Levin & Krejci 2019: 5)

The same is not true of the expletive *it* we find in raising structures.¹⁷

B. Weather subject can appear in purpose clauses, but expletives cannot:

- (37) a. *It rains* [_ to turn you numb].
 b. **It only seems that Tracy jogged* [_ to annoy us].¹⁸ (Levin & Krejci 2019: 6)

C. As mentioned before and some authors have suggested weather *it* may alternate with lexical subjects, at least, in a causative interpretation, but true expletives may not:

¹⁷ According to Stalmaszczyk (1996: 245), weather *it* can appear in theta-marked positions, unlike real expletives:

- (i) a. *John forced it to rain by using cloud-seeding techniques.*
 b. *A rise in air pressure prevented it from raining.*
 (ii) a. **John forced it to seem that he is funny.*
 b. **John prevented it from seeming that Mary is funny.*

¹⁸ On the intended interpretation with main clause *it* referring to the subject of *annoy*.

- (38) a. *The clouds rained blood, the skies rained ice.*
 b. **That supposition seemed that Tracy jogged.* (Levin & Krejci 2019: 8)

D. Weather verbs can take cognate objects and, according to Burzio's (1986) generalization, that would mean that they can take thematic subjects:

- (39) a. *It snowed a foot of new snow that first night.*
 b. **It seemed Tracy's awakening.* (Levin & Krejci 2019: 7)

E. Finally, unlike expletive pronouns, weather it could be addressed in imperative phrases:

- (40) a. *Please, don't rain.*
 b. **Please don't seem that Tracy jogged.* (Levin & Krejci 2019: 6)

All these arguments suggest that the pronoun *it* present in weather (or, at least, precipitation) verbs is not an expletive but a true, contentful, argument or quasi-argument; furthermore, according to Krejci (2014) it would have a referential value.¹⁹ Svenonius (2002) as well as Holmberg & Nikkane (2002) make a similar claim, the latter based on Finnish subjects. With regard to the theta-role, Levin & Krejci (2019) propose a source theta-role for *it* in the case of unergative/transitive construction, relying on the parallelism with substance emission verbs; precipitation *it* would correspond to the substance emitted in the unaccusative pattern.

¹⁹ Although they are for most part coincident, there is a slight difference here: Krejci (2014) argues for the argument status of weather *it*, but Levin and Krejci (2019) leave it open whether it is a referential argument or a quasi-argument, emphasizing that it certainly has semantic content. Krejci (2014) explains the infelicity of the expression 'What rains?' with the fact that the pronoun *it* has a single *denotatum* or referent, while the question leaves open the possibility of more than one referent.

5 The contribution of Basque to the theoretical issues on weather expressions

In this section, we will show what contribution Basque can make to the two issues raised in Section 4: weather predicates can be unequivocally unaccusative and unergative and the silent subject of transitive weather expressions has the features of a contentful argument.

With regard to the discussion about weather verbs, Basque clearly shows unaccusative and transitive paraphrases at the same time for the same kind of weather event, thus supporting the general duplicity advocated by Bleotu (2012, 2013, 2015):

(41) unaccusative predicates

a. [DP *euri-a*] *da*.

rain-ART.SG be.PRS.3SG

‘It is raining.’

b. *Ilun dago.* / *oskarbi dago.*

dark stay.PRS.3SG / sky.clear stay.PRS.3SG

‘It is dark.’ / ‘The sky is clear.’ (lit.: ‘It is sky-clear.’)

(42) transitive predicates

a. [DP *Euri-a*] *egin* *du* *eta* *laster* [DP *txingorr-a*]

rain-ART.SG do.PFV have.AUX.PRS.3SG and soon hail-ART.SG

bota *lezake.*

throw have.AUX.POT.3SG

‘It has rained and soon it could hail.’

- b. *Hotz ala bero egiten du?*
 cold or hot do-IPFV have.AUX.PRS.3SG
 ‘It is cold or hot?’ (lit.: ‘Does it make heat or cold?’)

In this respect, Basque does not seem to differ too much from nearby Romance languages (cf. Spanish, French, Italian), where both kinds of structures are attested (cf. ex. 33 above, or French *il y a du vent* (‘the wind is blowing’), *il fait chaud* (‘it is hot’)). Interestingly, Fábregas (2014: 18) draws attention to the fact that Spanish precipitation verbs can resort to a variant with the verb *hacer*:

- (43) *¿Hace lluvia? ¿Hace sol?*
 makes rain makes sun
 ‘Is it raining? Is the sun shining?’

These paraphrases are certainly similar to the Basque situation.

Among the verbs indicating weather change, we found both tendencies too (i.e., transitive and intransitive verbs), though the transitive pattern is more habitual, as we mentioned in Section 3.2.:

- (44) a. [DP *Egun-a*] *argitu* {*da* / *du*}.
 day-ART.SG clear.PFV be.AUX.PRS.3SG / have.AUX.PRS.3SG
 ‘The day has brightened / it has brightened the day’
- b. *Asko hoztu du.*
 much get.cooler.PFV have.AUX.PRS.3SG
 ‘It has cooled down a lot.’

The intransitive-transitive alternations shown in (44a) (and in ex. 9 vs ex. 14 above) could again reflect the variability between unaccusative and transitive patterns.

When it comes to precipitation predicates, Basque has a characteristic that distinguishes it from the neighboring languages: we have already mentioned that Beninça & Cinque (1992), Bleotu (2012, 2013, 2015), Krejci (2014) or Levin & Krejci (2019) often develop their approaches based on precipitation verbs like *rain* or *snow*. But, interestingly, equivalent expressions do not lexicalize as verbs in Basque, not at least in standard Basque and most dialects. In other words, as we remarked when talking about the typology proposed by EKK (2010), Basque codes precipitation phenomena by means of argument-type structures, in such a way that we hardly find verbs like %*euritu* (‘to rain’), %*elurtu* (‘to snow’), **txingortu* (‘to hail’), **kazkabartu* (‘to hail’), **zirimiritu* (‘to drizzle’). And if we find such verbs, they do not usually denote precipitation, but the fact of covering something with the mentioned substance.²⁰

- (45) *Eguraldi makurr-a-k futbol zelai-a elurtu*
 weather bad-ART.SG-ERG soccer stadium-ART.SG snow.PFV
zuen.
 have.AUX.SG.ERG.SG
 ‘The lousy weather covered the soccer stadium with snow.’

In light of these considerations, we claim that standard Basque in principle lacks precipitation verbs and it would be interesting to look into the cause of such restriction. In that sense, if Levin

²⁰ Verbs like *to hail*, *to drizzle* simply do not exist and speakers refuse them. Anyway, we are grateful to Koldo Zuazo (p.c.) for indicating to us that for some speakers of the Navarro-Lapurdian dialect verbs like %*euritu* are acceptable under the precipitation meaning. Indeed, the Basque General Dictionary (which tracks the history of all words in literature) mentions the verb *euritu* meaning ‘to rain’ with a rather marginal extension, but the Basque Academy normative dictionary did not include the verb until his second edition (2016). We checked the so called Corpus of Contemporary Basque (<https://www.ehu.eus/en/web/eins/egungo-testuen-corpusa-etc>, last access 24 November 2021) and the verb only has 11 occurrences, out of which only two have a clear meaning ‘to precipitate rain’.

& Krejci (2019) are right in saying that precipitation verbs must form a class with verbs of substance emission, it is not surprising that Basque has no equivalents for verbs like *gush*, *drip*, *bleed* or *seep*.²¹

In regard to the issue of subjects of weather expressions, we already stated that the empty subject of examples like (25) alternates with others where the subject is lexical and refers to some weather or surrounding element (i.e. day, morning, sky); thus, *pro* is really contentful. When it comes to transitive constructions and similar paraphrases, their subjects display characteristics that make them closer to arguments than to bare expletives. For one thing, we have the possibility of control by the subject of weather verb, as noted by Artiagoitia (2001):

- (46) *pro_i ezin du elurr-a egin* [SBJ_i *hotz-ik*
pro_i cannot have.AUX.PRS.3SG snow-ART.SG do SBJ_i cold-PART
egin gabe].
do without
‘It cannot snow without being cold.’ (Artiagoitia 2001: 16)

The first subject controls the second one, which means that whatever that ‘snows’ is the same ‘that makes cold’. Secondly, we run into the tests proposed by Levin & Krejci (2019), which confirm the argument status of these subjects:

A. Silent subjects of transitive weather verbs can appear in controlled positions; the main clause arguments that control those subjects are sentient or experiencer arguments of verbs like *know* and *want*, which would be animate, even though we have glossed them as *it*:

²¹ And again, perhaps not surprisingly, many emission verbs also take a transitive form, light *egin* ‘do, make’ verb included: *distira egin* ‘glow’, *keinu egin* ‘flicker’, *marmar egin* ‘babble’, and so on.

- (47) a. *pro_i badaki* [SBJ_i *elurr-a egiten*].
pro_i know.PRS.3SG SBJ_i snow-ART.SG do.IPFV
 ‘It is not rare that it snows a lot.’ (lit. ‘It knows doing snow.’)
- b. *Gaur pro_i ez du* [SBJ_i *huri-rik egin*] *nahi, baina*
 today *pro_i NEG have.AUX.PRS.3SG SBJ_i rain-PART do want but*
ez pro_i du [SBJ_i *egun-a argitu*] *nahi ere.*
 NEG *pro_i have.AUX.PRS.3SG SBJ_i day-ART.SG lighten want too*
 ‘Today, it has not begun to rain, but neither has it begun to lighten.’
 (lit. ‘Today it does not want to rain, but neither does it want to clear up.’)

Conversely, subjects of raising verbs like *eman* (‘seem’) cannot be controlled:

- (48) a. **pro_i ba-daki* [*pro_i Jon nekatuta dago-ela ematen*].
pro_i yes-know.3SG pro_i Jon tired stay.3SG-that seem.IPFV
 *‘It knows seeming that Jon is tired.’
- b. **pro_i ez du* [*pro_i Jon nekatuta dago-ela eman*]
pro_i NEG have.AUX.3SG pro_i Jon tired stay.3SG-that seem
nahi.
 want
 *‘It does not want to seem that Jon is tired.’

B. Similarly, subjects of weather expressions can control subjects of non-finite purpose clauses:

- (49) *pro_i euri-a egin du* [SBJ_i *gure plan-ak*
pro_i rain-ART.SG do.PFV have.AUX.3SG SBJ_i our plan-ART.PL
zapuz-te-ko].
 ruin-NMLZ-PURP

‘It has rained to ruin all our plans.’

Compare (49) with the next example (notice that the subject of *ruin* is the silent subject of *seem*, not Jon):

- (50) **pro_i Jon nekatuta dago-ela ematen du* [SBJ_i *gure*
pro_i Jon tired stay.3SG-that seem have.AUX.3SG SBJ_i our
plan-ak zapuz-te-ko].
 plan-ART.PL ruin-NMLZ-PURP

‘It seems that Jon is tired to ruin our plans.’

C. Silent subjects of weather expressions may sometimes alternate with lexical subjects, as is the case of causative interpretations of some verbs like English *rain* (cf. Bleotu’s *God rained heavy rain*):

- (51) a. *...zeren eta eguzki-ak euri egiten ba-du, hodei*
 because sun-ART.SG.ERG rain do.IPFV if-have.AUX.3SG cloud
bat da.
 ART be.3SG

‘...because if the sun rains, it is a cloud.’ (lit.: ‘if the sun makes rain...’)

(J. M. Irigoien, *Lur bat haratago*, 2000: 146)

- b. ... *Jaun-a-k* *lur* *gain-era* *huri-a* *egin* *dezan*
 Lord-ART.SG-ERG land top-SG.LOC rain-ART.SG do.PFV have.AUX.SBJ
arte
 until
 ‘... until the Lord rains on the surface of the ground.’ (lit.: ‘until Lord makes rain
 on the surface...’) (Kings 17:14, Interchurch Bible, 2004)

D. Last, weather verbs can appear with imperative forms, unlike raising verbs like *eman* or *irudi* ‘seem’:²²

- (52) a. *pro elurr-a* *egin* *deza-la,* *arren.*
pro snow-ART.SG do have.AUX.ERG.3SG-that please
 ‘Please, may it snow.’
- b. **pro {eman, irudi}* *deza-la* *Jon nekatuta* *dago-ela.*
pro give seem have.AUX.ERG.3SG-that Jon tired stay.3SG-that
 * ‘May it seem it that Jon is tired.’

The test based on cognate objects proposed by Levin & Krejci (2019) does not work in Basque for a very simple reason: in Basque transitive periphrases, we find a light verb and a lexical complement, and we hardly find the whole predicate lexicalized as a single verb.²³

²² Basque state verbs like *jakin* ‘know’ accept imperative forms, so the contrast cannot be attributed to seem-type verbs’ being stative in some sense.

²³ Otherwise, another complements that are possible in English are possible in Basque too:

(i) *Euri mehe-a* / *sendo-a* *egin* *zuen.*
 rain light-ABS.SG / heavy-ART.SG do have.AUX.PST.3SG
 ‘It rained a light/heavy rain.’

For speakers who may use precipitation verbs like %*euritu* (to rain), it comes as no surprise that they regard sentences like ‘*ze euri lodia euritu duen gaur*’ (‘What a thick rain it rained today’) as totally natural (Maitena Duhalde, p.c.).

For all the reasons outlined above, we can conclude that the *pro* silent subjects of Basque transitive weather expressions resemble arguments or quasi-arguments rather than the expletive *pro* we find with true impersonal verbs. A reviewer asks whether there is any convergence or similarity with Spanish regarding weather subjects. In as much as the external argument of weather predicates that has been proposed for Spanish is a lexical spatio-temporal argument (Fernández Soriano 1999, Fábregas 2014), there seems to be little coincidence:

- (53) a. *En Madrid llueve / nieva / amanece*
 in Madrid rains / snows / dawns
 ‘It rains / snows / dawns *(in Madrid)’ (Fernández Soriano 1999: 193)
- b. *(Madrilen) euria da / elurra da / eguna zabaldu du*
 ‘It rains / snows / has dawned (in Madrid)’

We see no evidence for such an argument in Basque, given that the spatio-temporal or locative element is never necessary; in fact almost all the Basque examples with meteorological predicates provided in this article lack such a spatio-temporal argument (in subject position or elsewhere); if there is any locative, then it will have adjunct status (cf. 15b-c, 47b). Even for the predicates *hacer calor* ‘make heat’ or *hacer lluvia* ‘make rain’ (cf. Fr. *faire chaud*, It. *fare freddo*), Fábregas (2014) regards the internal (bare) arguments as their logical subject;²⁴ Basque *euria egin* ‘rain make’, on the other hand, is clearly transitive, has no spatio-temporal overt argument as subject but a third person (normally silent) singular subject, as just argued in this section.

Furthermore, considering examples like the ones in (49), it seems that the *pro* element in Basque weather expressions must be singular and animate, just like in some other languages (cf.

²⁴ Apparently in line with Ruwet (1991: 155), for whom this *faire* is used unaccusatively.

Faroese, Icelandic; EKK 2010, 2015); the issue of how to interpret this kind of (generally silent yet contentful) subject remains open. In any case, we wish to remark that this affirmation only concerns silent ergative subject *pro* of transitive constructions, so that the analysis of silent subjects in expressions like (9) and (12) may need a different approach.

6 Conclusions

Formally, there seem to be six separate grammatical structures related to the expression of weather phenomena in Basque: (a) single verbs which alternate between the intransitive and the transitive auxiliary, the latter being the most spread option (cf. *lainotu* ‘become cloudy’); (b) DP + *izan* ‘be’ copula (cf. *euria da* ‘it is raining’); (c) adjective/noun + *egon* ‘be, stay’ copula (cf. *oskarbi dago* ‘it is clear’); (d) DP + progressive verb *ari* with transitive auxiliary (cf. *euria ari du* ‘it is raining’); (e) {DP / N} + light verb *egin* ‘do, make’ (cf. *hotz egiten du* ‘it makes cold’); (f) DP + lexical verb (cf. *euria dakar* ‘it is going to rain’; lit: ‘it brings rain’).

If we look at Basque weather expressions from the point of view of EKK’s (2010) typology, we detect a clear tendency for the argument type in precipitation events, be it with an existential construction (cf. *euria da* = ‘there is rain’) or with a transitive format (cf. *euria egin du* = ‘it has made rain’). When it comes to temperature events, there is also a clear tendency for the argument type (cf. *hotz (handia) egiten du* = ‘it makes (big) cold’), even though the predicate type is also possible (cf. (*zerua*) *oskarbi/hotz dago* ‘{the sky/it} is clear/cold’). Regarding expressions that have to do with change (of daytimes, of temperature, of weather), the predicate type (cf. *atertu* ‘clear up’, *hoztu* ‘cool’, *ilundu* ‘darken’...) is by far the most common. It must be noted in any case that, among predicates, one hardly ever finds any precipitation verb; this is perhaps due to the same reason why there is no substance emission verb in Basque to start with, if Krejci (2014) and Levin & Krejci (2019) are right in establishing a connection between the two types of verbs.

Finally, Basque also has examples of argument-predicate split type for a variety of meteorological events (cf. *euria mugitu du* = ‘it has moved rain’, *eguna zabaldu du* = ‘it has opened the day’, *euria dakar* = ‘it brings rain’).

With respect to the unaccusativity / unergativity debate, we can conclude that Basque resorts to both unaccusative and transitive paraphrases to talk about the weather, just like neighbouring Romance languages. Among weather verbs that get lexicalized as such, one finds both intransitive and transitive ones, even though the latter are more common; we may take this duality to be a reflex of the general battle between an unaccusative and transitive lexicalization pattern.

Finally, based on the transitive structures used to express weather phenomena in Basque, we can say that there are enough arguments to think that the null subject of those structures is closer to a quasi-argument rather than a pure expletive.

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Abbreviations

1 first person	AUX auxiliary
2 second person	COMP complementizer
3 third person	DAT dative
3R third person realis form	ERG ergative
ABS absolutive	F feminine
ART article	FUT future

GEN	genitive	PFV	perfective
IMP	imperative	PL	plural
IND	indicative	PLAIN.IND	plain indicative
IPFV	imperfective	POT	potential
LOC	locative	PRF	perfect
M	masculine	PROG	progressive
N	neuter	PRS	present
NEG	negation	PST	past
NFUT	no future	PURP	purposive
NMLZ	nominalization	SBJ	subject
NOM	nominative	SG	singular
PART	partitive		

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