

The structural ergative of Basque and the theory of Case*

Milan Rezac (SFL/CNRS), Pablo Albizu (UPV/EHU), Ricardo Etxepare (IKER/CNRS)

Abstract: We investigate the nature of ergativity through Basque. In Basque, ergative case and agreement reflect structural rather than inherent Case: Agree/Move rather than thematic or other *c/s*-selectional dependencies. Evidence comes from the core distinctions between these dependency types, including ergative-absolutive alternations due to raising-to-ergative of internal arguments and absolutive Exceptional Case Marking of external arguments. Thus structural Case systems cannot be reduced to a nominative-accusative basis with an inherent ergative, as recent work proposes (Woolford 2006, Legate 2008). In turn, our investigation clarifies the nature of structural ergativity. First, ergativity, like nominativity, comes from the supra-vP T-system, whereas absolutivity and accusativity are lower. Second, ergative agreement can occur under unbounded *c*-command through Agree, like nominative and accusative case and agreement, but ergative case assignment requires movement to Spec,T, bearing out the ergative as a 'marked' structural Case. Third, structural Agree/Case systems show not only ergative and accusative alignments, but also arbitrary islands of each pattern within the other, calling for suitable parametric tools. We develop a theoretical account of these results in the current Principles-and-Parameters framework (Chomsky 2000, 2008), building on theories of structural ergativity (Laka 2000, Bobaljik 1993, Bittner and Hale 1996).

1 Introduction

In this paper, we investigate the nature of ergativity through Basque. We argue that in Basque, ergative case and agreement reflect structural rather than inherent Case, contrary to recent proposals that all ergativity is inherent (Woolford 1997, 2006, Legate 2008). Our arguments come from the fundamental differences between structural and inherent Case, including alternations between ergative and absolutive due to raising and Exceptional Case Marking (ECM). Thus Basque ergative and absolutive are both akin to the structural nominative and accusative of systems like Icelandic and contrast with their thematic and idiosyncratic dative or genitive. This conclusion has significant repercussions for Case theory: structural Agree/Case systems cannot be reduced to a uniform nominative-accusative basis and must be susceptible to parametrization.

We also reach better understanding of the structural ergativity of Basque. First, the source of ergativity, like nominativity, is in the supra-vP functional system, which we provisionally designate T, whereas absolutivity and accusativity lie lower. Second, ergative *agreement* can occur under unbounded *c*-command through Agree, like Icelandic

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nominative and accusative case and agreement, but ergative *case* assignment requires Agree+Move to Spec,T, bearing out the intuition that the ergative is a 'marked' structural Case. Third, structural Agree/Case systems show not only ergative and accusative alignments, but also arbitrary islands of each pattern within the other, calling for suitable parametric tools. We discuss the theoretical implementation of these results in the current Principles-and-Parameters framework (Chomsky 2000, 2008) and theories of structural ergativity in it (Laka 2000, Bobaljik 1993, Bittner and Hale 1996, among others).

In the remainder of this introduction, we set out the context and the importance of our principal result: ergativity reflects structural rather than inherent Case. In accusative systems (1)a, the case-marking and/or agreement of the subjects of transitives (EA) and intransitives (S), *nominative*, aligns against the object of transitives, *accusative*. In ergative systems (1)b, S and O align as *absolute* against EA as *ergative*. In Basque, ergativity pertains to both the case morphology of nouns and the agreement morphology of verbs, and we will argue for the structural character of both.

(1) *Accusative vs. ergative alignment*

- a. Accusative: $\boxed{\text{EA S}}_{\text{NOM}} \text{O}_{\text{ACC}}$ b. Ergative: $\text{EA}_{\text{ERG}} \boxed{\text{S O}}_{\text{ABS}}$

In much work, all four case/agreement relations are viewed as structural (e.g; Murasugi 1992, Bobaljik 1993, Laka 1993a, 2000, Bittner and Hale 1996, Bobaljik and Branigan 2006). Some work argues that in particular systems, ergative case/agreement is inherent (e.g. Anand and Nevins 2006, Massam 2006, Wiltschko 2008). However, other recent work takes the stronger position in (2) (Woolford 2006, Legate 2008):

- (2) *Inherent Ergative Hypothesis* (IEH): The ergativity of an argument α obtains in virtue of the inherent relations of α , that is thematic or lexically idiosyncratic selection.

On Woolford's (1997, 2006) analysis, ergativity obtains in virtue of being the external argument of *v*. Other analyses also permit ergativity to come through idiosyncratic *c*-selection by the verbal root (Oyharçabal 1992, Mahajan forthc in *v+V*). Both kinds of ergativity are inherent: the former is associated with theta roles, the latter with lexically arbitrary *c*-selectional properties (cf. Woolford 2006).

The theoretical appeal of the IEH is a profound simplification of the theory of structural Agree/Case dependencies. It construes an ergative system as an accusative one with inherent Case on the external argument of *v*, parallel to psych-verbs with inherent dative experiencers and nominative (Icelandic) or accusative (Faroese) objects. This permits dispensing with stipulative parametrizations of structural Agree/Case, such as the Obligatory Case Parameter of Laka (2000) or the distribution of covert D° in Bittner and Hale (1996). Indeed, ergativity often does not show the properties of structural Agree/Case: it is not changed by raising (Marantz 1991), it is not affected by properties of the non-thematic C/T system, it attaches to thematic roles (Massam 2006). By these same criteria, the Basque ergative proves structural. The theory of Agree/Case must countenance the existence of ergative and accusative alignment.

The IEH is articulated within a specific understanding of the notions of *structural* and *inherent* Case (Woolford 1997, 2006, Legate 2006, 2008). It may be illustrated by Icelandic ECM configurations (Andrews 1982, 1990, Freidin and Sprouse 1991, Sigurðsson 1991, 2008, Jónsson 1996, Thráinsson 2007). In (3), the internal argument of 'buy' does not have inherent Case. Under an active ECM verb, it is accusative, while under a passive one, nominative. Its agreement and case do not depend on its thematic relationships, but on whether the closest matrix Agree/Case locus is v/V_{ACC} or T_{NOM}. These loci result in accusativity or nominativity independently of whether the DP is raised to the matrix clause or remains in the lower clause at an indefinite distance, with intervening participles agreeing with the DP. By contrast, in (4) the internal argument of 'rescue' has an inherent dative by virtue of its thematic or lexical relationships to the VP of 'rescue' where it originates. This dative is not affected by embedding under different matrix structures and intervening participles do not agree with it, although it also may raise or stay in-situ. The same is true in (5) for the dative experiencer of psych-verbs.¹

(3) *Icelandic: alternation of structural nominative-accusative under ECM*

- a. Hún taldi hafa verið **keypta** **einhverjir báta**.
she believed.3s to.have been bought.pACC several boats.ACC
- b. Hún taldi **einhverjir báta** hafa verið keypta *t*.
- c. Það **voru taldir** hafa verið **keyptir**
there were.3p believed.pNOM to.have been bought.pNOM
einhverjir bátar.
several boats.NOM
- d. **Einhverjir bátar voru taldir** hafa verið **keyptir** *t*.

(Icelandic, a-c Sigurðsson 1991: 355f.)

(4) *Icelandic: preservation of inherent internal dative under ECM*

- a. Hún taldi [hafa verið bjargað **einhverjum bátum**].
she believed to.have been rescued.DFLT several boats.pDAT
- b. Hún taldi **einhverjum bátum** hafa verið bjargað *t*.
- c. Það var talið [hafa verið bjargað **einhverjum bátum**].
there was believed.DFLT to.have been rescued.DFLT several boats.pDAT
- d. **Einhverjum bátum** var talið hafa verið bjargað *t*.

(Icelandic, a-c Sigurðsson 1991: 355f.)

(5) *Icelandic: preservation of inherent external dative under ECM*

- a. Hann telur **barninu** (í barnaskap sínum) hafa batnað veikin.
he believes the.child.DAT in foolishness his to.have recovered disease.the.NOM
He believes (in his foolishness) that the child has recovered from the disease.
- b. **Barninu** er talið hafa batnað veikin.
the.child.DAT is believed to.have recovered disease.the.NOM
The child is believed to have recovered from the disease.

¹ Abbreviations in glosses: 1/2/3 person, s/p number, E ergative, A absolutive, D dative, NOM nominative, ACC accusative, d the "definite" article of Basque, ALLOC allocutive form, HYP hypothetical, PRES present, DFLT default. Examples: 2pE = 2nd person plural ergative, d.pA definite article fused with plural absolutive, sE singular ergative.

(Andrews 1982:464)

This structural-inherent distinction may be modelled in different ways. In the Principles and Parameters framework, Chomsky (1986, 1995, 2000, 2004) proposes that it reflects different types of dependencies satisfying the requirement that a DP bear Case. Agree underlies structural Case, relating a DP to a functional head over a phrase-structurally unbounded distance, with or without (internal) Merge to give movement. Select underlies inherent Case, introducing a DP into the thematic domain through (external) Merge in virtue of the information locally present there. Both may give rise to agreement and case morphology.² Other proposals assimilate the two types of dependencies (Starke 2001, Collins 2002, Adger 2003, Pesetsky and Torrego 2006, Müller 2010). Both inherent and structural Case may reflect Agree(+Merge) and their differences are derived by using the fact that the former builds thematic relations (Boeckx, Hornstein and Nunes 2010; cf. Svenonius *forthc*, Caha 2009, Kayne 2004). Our arguments against the IEH hold across these various construals of the structural-inherent distinction, for they rely on their differences, as in (3)-(5). However, we will formulate our analysis in the terms of Chomsky (2000 *et seq.*), distinguishing Agree and Select.

We begin by sketching the distribution of ergativity in Basque in section 2. Section 3 argues against the IEH from ECM contexts, where external arguments lose ergativity due to an impoverished C/T system and gain absolutivity under Exceptional Case Marking. Section 4 argues against the IEH from raising, where ergativity emerges via an Agree/Move relation to a high functional head, alternating with absolutive case but ergative agreement in-situ, or absolutive case and agreement if there is an intervener for Agree. In section 5, we gather the results to develop a model of Basque ergativity in the Agree model of the Principles and Parameters framework.

2 The ergative system of Basque

Syntactically, Basque is accusative to a degree comparable to French or Spanish. The external argument of transitives is higher than the internal argument for c-command diagnostics like quantifier-variable and reflexive binding, and the external argument of transitives groups with the core argument of unaccusatives for subjecthood diagnostics like control. These properties are established and reviewed in Ortiz de Urbina (1989) and Oyharçabal (1992, 2000). The ergativity of Basque is in its case and agreement system.

Consider the Basque transitive and intransitive sentences in (6). The transitive subject *Nekane* is marked by the case suffix *-k*, the ergative, and the transitive subject and object *Miren eta Jon* has no suffix, the absolutive. This ergative-absolutive case pattern is the opposite of the nominative-accusative pattern of Romance or Germanic, which groups transitive objects against transitive and intransitive subjects, *She saw her*, *She came*.

² See for inherent versus structural Case, Chomsky (1986: 193, 1995: 114, 386 note 55, 2000: 143 note 31); for theta-assignment versus Agree, Chomsky (1995: 4.6, 347, 2000: 111f., 133f., 2004: 111-3), and for concord upon Merge without Agree, Chomsky (2001: 42 note 6).

(6) *Basque: ergativity*

- a. **Nekane-k** Miren eta Jon ikusi ditu.
Nekane-E Miren[.A] and Jon[.A] seen AUX.3pA.3sE
Nekane saw Miren and Jon.
- b. Miren eta Jon etorri dira.
Miren[.A] and Jon[.A] come AUX.3pA
Miren and Jon came.

The ergative alignment of Basque is blurred by the behavior of some intransitives (Oyharçabal 1992, 1999, Etxepare 2003a, Aldai 2009). The unergative-unaccusative distinction plays a role (Perlmutter 1971, Burzio 1986). Unaccusatives generally take absolutive subjects, setting aside a couple of apparent exceptions like *irakin* and *iraun* in (7) that may not be unaccusative.³ Unergatives, shown in (8), vary within a given dialect and across dialects, tending to absolutive subjects in the east and ergative ones in the west, absolutive and active alignment respectively (Dixon 1994, Aldai 2009). One approach that has proved fruitful is to treat ergative-subject unergatives as covertly transitive (Laka 1993a, 2000). We return to these issues in section 5.3.

(7) *Basque: Apparent unaccusatives with ergative subject*

- a. Ur-ak irakin du b. Ur-ak iraun du
water-d.sE boiled AUX.3sE water-d.sE last AUX.3sE
(The) water boiled. (The) water lasted.

(8) *Basque: Unergatives with ergative (~ absolutive) subject*

- a. Jon-ek dantzatu du. (*western*) ~ b. Jon dantzatu da. (*eastern*)
Jon-E danced AUX.3sE Jon[.A] danced AUX.3sA
Jon danced.

This ergative alignment of Basque is reflected in case morphology in finite and nonfinite clauses, and in finite clauses also in agreement. As shown in (9), the agreement affix cross-referencing the ergative 1SG is the suffix *-t*, while that cross-referencing the absolutive 1SG is the prefix *n(a)-*. Tense and agreement are typically hosted on auxiliary roots, whose choice also reflects ergative alignment. In (9), the root *u* appears when there is ergative agreement, *iz* otherwise.⁴ Agreement thus indicates person, number, and ergativity by the place and form of affixes, as well as by the form of the root. We gloss this in the abbreviated manner shown in brackets in (9). There is also agreement with

³ We do not have well-studied independent diagnostics for unaccusativity in Basque. Partitive assignment may be one (Etxepare, Albizu and Rezac in prep) and then diagnoses the ergative-subject verbs like *irakin* 'boil' as unergative rather than unaccusative (Arteax 2007: 35 note 7). Causativization patterns (suggested by M. Baker, p.c.) have proven unhelpful because of the role of animacy. Meaning is often affected by absolutive vs. ergative subject, but not always as far as can be told, e.g. Bizkaian ergative-subject *urten* 'go out', *igon* 'go up, rise' versus absolutive-subject *irten*, *igo* of other dialects (Aldai 2009, Etxepare 2003a).

⁴ This is helpful for 3SG unergatives and absolutives, which lack an overt affix: *du* glossed AUX.(3sA).3sE in (6)a is *d-u* PRES-AUX(+ERG); *da* glossed AUX.3sA (6)a is *d-a* PRES-AUX(-ERG).

datives, using a partly distinct set of affixes and roots (see Laka 1993b, Rebuschi 1983, Albizu 2002, Hualde, Oyharçabal and Ortiz de Urbina 2003 for overviews).⁵

(9) *Basque: case and agreement morphology*

- a. Ni-k asko ikusi d-it-u-t
I-E many[.A] seen PRES-3pA-AUX(+ERG)-1sE (AUX.3pA.1sE)
I saw many.
- b. Asko-k ni ikusi na-u-te
many-E I[.A] seen 1sA-AUX(+ERG)-3pE (AUX.1sA.3pE)
Many saw me.
- c. Ni etorri na-iz
I[.A] come 1sA-AUX(-ERG) (AUX.1sA)
I came.

Both structural and inherent proposals for Basque ergativity have been advanced: the structural approach in Ortiz de Urbina (1989), Laka (1993a, 2000, 2006a), Artiagoitia (2001ab), Albizu and Fernández (2006), the inherent one in Oyharçabal (1992), Laka (2006b). We will show that ergative case and agreement both reflect structural relations.

3 Exceptional Case Marking in perception complements

3.1 Gerund complements of perception verbs

Our first argument for the structural character of Basque ergativity is its absence on transitive subjects in perception verb complements, which are absolutive. Building on Arteatx (2007), we will show that Basque perception verb complements project the external argument in a thematically complete vP, but have an impoverished supra-vP functional architecture or T-system. The impoverished T-system lacks the source of ergativity, leaving the transitive subject to become absolutive through Exceptional Case Marking (ECM) by the perception verb. Ergativity is thus not a property of the thematic vP system, but of the T-system. The result is an ergative-absolutive alternation of transitive subjects parallel to nominative-accusative alternation between finite clauses and ECM infinitives in Icelandic or English. In both types of systems, a sufficiently rich T system is necessary for ergative/nominative. In contrast, inherent case is preserved whenever the thematic vP system that assigns it is present, as seen in Icelandic (3)-(5).

Transitive subjects in Basque bear ergative case in finite clauses and several types of nonfinite clauses. However, in nonfinite perception verb complements, they are absolutive. Thus, the finite clause (5)a with ergative *katuek* corresponds to the nonfinite *tzen-gerund* in (5)b with absolutive *katuak*. The coding of other arguments is unaffected.

⁵ We set aside so-called ergative displacement in agreement whereby 1/2.ERG→3.ABS combinations use prefixes for the ergative in certain tense-mood combinations (Laka 1993a, Fernandez 1997, 2001, Albizu and Eguren 2000, Albizu 2002, Rezac 2003). It does not result in accusative alignment of agreement, since the agreement complex as a whole includes other information identifying the prefixes as coding ergatives.

In other nonfinite clauses, transitive subjects are ergative, such as *tze-a*-gerunds in (10)c. We will show that the difference resides in the impoverished T-system of *tzen* gerunds.

(10) *Basque: clausal complements of ECM perception verbs*

- a. Katu-ek/*ak sagu-ak harrapa-tu/tzen dituzte-la ikusi dut
 cat-d.pE/*pA mouse-d.pA catch/catching AUX.3pA.3pE-that seen AUX.1sE
 I saw that the cats caught / were catching the mice.
- b. Katu-ak/*ek sagu-ak harrapa-tzen ikusi ditut
 cat-d.pA/*pE mouse-d.pA catch-ing seen AUX.3pA.1sE
 I saw the cats catch/catching the mice.
- c. Katu-ek/*ak sagu-ak harrapa-tze-a-k harritu nau
 cat-d.pE/*pA mouse-d.pA catch-ing-d-sE surprised AUX.3sE.1aA
 The cats catching the mice surprised me.

Basque and English nonfinite clausal complements of perception verbs are similar, and the well-studied properties of English can guide the analysis of Basque (Declerc 1982, Safir 1993, Cinque 1995, Felser 1998). English perception verb + DP + gerund have two structures. In one, (11)a, the object of perception is the DP, and the gerund is a clausal adjunct with subject PRO controlled by the DP. This structure entails perception of the DP and allows passivization on the DP: *We saw John (PRO, as he was) falling, John was seen (PRO, as he was) falling*. In the other structure, (11)b, the object of perception is [DP gerund/infinitive]. There is no thematic relationship between the perception verb and the DP, and perception of the DP is not entailed. This structure does not allow passivization: *We saw the temperature fall(ing)* vs. *#We saw the temperature (as it was falling), *The temperature was seen fall(ing)*. It is this second structure that is relevant to us, because the DP belongs thematically to the gerund only. The gerund shares its thematic properties with parallel finite clauses. Consequently, differences in the case of the DP between the gerund and the finite clause lie elsewhere. In English, the gerund has no or impoverished T-system, leaving it with no source of nominative assignment, and allowing the imposition of ECM accusative on its subject.⁶

(11) *Perception verb structures*

- a. [V_{perception} DP_i] [PRO_i gerund / *infinitive]
 b. [V_{perception} [DP gerund / infinitive]]

Arteatx (2007) establishes the (11)b [DP gerund] structure in Basque through properties that have established it for English, to which we add others. First, DP + gerund form a constituent while control DP and [PRO gerund] do not, (12) (Arteatx 2007: 32f.).⁷

(12) *Basque: Constituency of DP + tzen*

⁶ English allows a third structure with the gerund as a DP-internal modifier, unavailable to Basque.

⁷ All object control verbs taking *tzen* complements have the controller in the dative. *Utzi* can also take DP objects and mean 'leave', in which case the string *Zer utzi du Jonek? Miren, pianoa jotzen* means 'What did Jon leave? Miren, (as she was) playing the piano'. For verbs like *utzi*, see Artiagoitia (2003: 4.10.1.2.2.2).

- a. Zer ikusi duzu (*Miren)? [Miren piano-a jo-tzen].
 What[.A] seen AUX.(3sA).2sE Miren[.A] Miren[.A] piano-d[.sA] play-ing
 What did you see (*Miren)? Miren playing the piano.
- b. Zer utzi diozu (Miren-i)? [(Miren-i) piano-a jo-tzen].
 what[.A] let AUX.(3sA).3sD.2sE Miren-D Miren-D piano-d[.sA] play-ing
 What did you let (Miren) do? (*Miren) to play the piano.

Second, agreement with 3rd person DPs is optional, (13), while with arguments of the agreeing verb it is obligatory. This optionality is common across clausal boundaries elsewhere, including in Icelandic raising (Sigurðsson and Holmberg 2008, Chomsky 2000: 128 on Icelandic) and Basque control (Etxepare 2006, Preminger 2009).

(13) *Basque: Agreement in DP + tzen*

- a. Azken hilabete-otan [gazteak kale erdi-an janz-ten] ikusi ditut/dut.
 last month-d.p.in young-d.pA street middle-d.in dress-ing seen AUX.3pA/3sA.1sE
 These last months I have seen young people dress(ing) in the middle of the street.
- b. Azken hilabete-otan [zu kale erdi-an janz-ten] ikusi zaitut/*dut.
 last month-d.p.in you[.A] street middle-d.in dress-ing seen AUX.2sA/*3sA.1sE
 These last months I have seen you dress(ing) in the middle of the street.

Third, the DP's thematic relations are to the gerund only, not to the perception verb, (14), so that perception of [DP gerund] does not entail perception of the DP (Arteatx 2007: 41f.). Thus the absolutive DP in [DP gerund] has all and only the thematic properties that it has in parallel finite clauses where it is ergative. Such examples include detransitivization with reflexive/reciprocal meaning, (15). This is the Basque analogue of Romance *se*-constructions and operates on the vP to project the external argument interpreted reflexively, confirming that the perception complement includes at least the full vP structure (see 4.3). The finite and *tzen*-gerund structures have the same thematic system, the vP, and the Case difference in the transitive subject lies elsewhere.

(14) *Basque: Thematic independence of perception V and DP*

- a. Miren-ek temperatura *(jais-ten) ikusi zuen.
 Miren-E temperature.d[.sA] descend-ing seen AUX.(3sA).3sE
 Miren saw the temperature fall/falling.
- b. Haize-a zuhaitz-ak mugi-tzen ikusi dut.
 wind-d[.sA] trees-d.pA mov-ing seen AUX.(3sA).1sE
 I saw the wind move/moving the trees. (*does not entail* I saw the wind)
 (Arteatx 2007: 41f.)

(15) *Basque: Detransitivized complements*

- a. Unibertsitate-ko irakasle-ak etengabe goraipa-tzen dira
 University-GEN professor-d.pA continuously prais-ing AUX.3pA
 University professors continuously praise themselves/each other.
- b. Unibertsitate-ko irakasle-ak etengabe goraipa-tzen ikusi ditugu
 University-GEN professor-d.pA continuously prais-ing seen AUX.3pA.1pE

We saw university professors continuously praise themselves/each other.
(*does not necessarily entail* We saw university professors.)

The source of ergativity lies in the T-system, since this is where *tzen* gerunds differ from structures that license the ergative. Arteatx shows that Basque [DP *tzen*-gerund] perception complements have the same tense and aspect properties as English [DP gerund / infinitive] perception complements (Felser 1998). The event of the gerund is distinct from that of perception, and it may have the ongoing-event reading of English [DP gerund] *I saw the cats catching the mice* or the whole-event reading of English [DP infinitive] *I saw the cats catch the mice*. However, the tense and temporal adverbs of the gerund cannot be independent of the perception verb, and the gerund cannot host perfect and progressive auxiliaries or sentential negation. In minimal contrast, *tze-a*-gerunds like (10)c have their own tense and can host auxiliaries and negation. Correspondingly, their transitive subject is ergative. Ergativity thus correlates with a rich T-system. We will designate its locus as T_{ERG}, a cover term for possibilities such as Fin_{ERG}.

3.2 Exceptional Case Marking

Our conclusion that *tzen* gerunds in (11)b project the external argument without ergative is independent of how it gets to be absolutive. There is evidence that it occurs by Exceptional Case Marking by the perception verb, as in English perception structures, rather than within the gerund itself, as in English ACC+ing gerunds, [*Them catching the mice*] *surprised me* (Davies and Dubinsky 2004, Pires 2007).

The clearest line of evidence for ECM comes from the inability of *tzen* gerunds to license overt subjects, like English infinitives and unlike English ACC+ing gerunds. *Tzen* gerunds consist of the verb stem + the nominalizer *tze* + locative case *-n* (Laka 2006a). Other than under perception verbs, they are found as control complements to verbs like *utzi* 'let', *ahaztu* 'forget', *lagundu* 'help', restructuring complements of aspectual periphrases like *DP V-tzen ari izan* 'DP be Ving', and progressive adjuncts (section 3.3). In all of them, the subject of the *tzen* gerund can only be PRO. Therefore, in (10)b the overt subject *katuak* (*harrapatzen*) is licensed by the perception verb providing it with Case under ECM, just as in the English translation *cats* (*catch*) is so licensed. This is confirmed by absolutive agreement of the perception verb with the subject (Arteatx 2007). We may contrast *tze-n* gerunds with *tze-a* gerunds, the Basque counterpart of English ACC + *ing* gerunds, seen in (18)a. *Tze-a*- gerunds have the definite article *-a* and the external distribution and case-marking of DPs (Artiagoitia 2003). They Case-license their own overt subject and bar it from external agreement (Etxepare 2006).⁸

⁸ Arteatx (2007) takes optional partitive case on the subject of *tzen* gerunds under negation to be evidence of ECM, but partitive licensing is not restricted to DPs that get Case from the negated clause (Etxepare and Ortiz de Urbina 2003: 551 ex. 1181j; cf. de Rijk 1972). Likewise unclear is the nature and consequences of raising the gerund subject into the matrix clause. In English, gerund and bare infinitive perception complements do not allow passivization of their subjects, include it under constituency tests, and bare infinitives allow extraction from within it, all in contrast *believe* + *to*-infinitive, suggesting that the subject of the former stays in-situ (cf. Davies and Dubinsky 2004, Basilico 2003). In Basque perception + *tzen*

ECM in Icelandic (3)-(5) permits direct contrast between subjects with structural Case assigned by ECM and with inherent Case not affected by it. Basque lacks true subjects with inherent Case, but the ECM context of *tzen* gerunds can still be used to contrast structural ergative and inherent dative. Basque unaccusatives come with high or low datives, (16) (Albizu 2007a, 2011, Etxepare and Oyharçabal forthc a, b, Fernández and Ortiz de Urbina 2010, Rezac 2008b). High but not low datives c-command the core argument of unaccusatives, S, according to diagnostics that depend on the A-position of the phrasal content of DP such as quantifier-variable binding and word order. Unlike in Icelandic, high datives do not pass the subjecthood test of being PRO, which is restricted to S. We analyse this as in (16): the dative has the highest A-position as DP, but S relates to the subjecthood locus T_{EPP} by 'rich' agreement clitic/D^o doubling (Rezac 2008b: 76ff.).

(16) *Unaccusative + dative*

- a. T+D^o_{ABS} DP_{DAT} DP_{ABS} (t_{DAT}) (high datives in unaccusatives)
 b. T+D^o_{ABS} DP_{ABS} PP_{DAT} (low datives in unaccusatives)

(17) *Basque: Possessor datives in unaccusatives*

- a. Miren-i giltz-ak eskuetatik erori zaizkio / *dira / *zaio.
 Miren-D key-d.pA from.the.hands fallen AUX.3pA.3sD / *3pA / *3sA.3sD
 b. Giltz-ak Miren-i eskuetatik erortzen ikusi ditut / *dizkiot.
 key-d.pA Miren-D from.the.hands seen AUX.3pA.1sE / *3pA.3sD.1sE

Among high datives is the possessor in (17)a, c-commanding S, as reflected by neutral word order and dative agreement. When this structure is placed under perception verbs, (17)b, c-command reverses and agreement becomes impossible.⁹ This reflects a constraint against agreement with datives across an absolutive.¹⁰ Our interpretation is that

complement, Arteatx (2007) proposes Case-driven raising of the absolutive to take place, but the evidence is uncertain. On constituency tests, Basque patterns with English perception and not *believe* complements; *wh*-pied-piping takes the gerund and its internal arguments while stranding its subject, suggesting the subject is outside the pied-piped constituent; only a perceptible subject may be split from the gerund to give an alterantive order (10)b as *Katuak ikusi ditut saguak harrapatzen*, but not for (14), suggesting that this matrix position of the absolutive comes about through A'-movement (focalization).

⁹ Contrast *tzen* complements (11)b with *tzen* adjuncts (11)a in (i), discussed below. In the latter, the absolutive and dative are matrix arguments, as reflected by word order, obligatory agreement, and failure to pied-pipe the gerund in *wh*-movement (**Zer erortzen ikusi diozu* 'What falling saw AUX.(3sA).3sD.2sE').

- (i) Miren-i giltz-ak ikusi dizkiot / *ditut / *diot (, eskuetatik eror-tzen.)
 Miren-D key-d.pA seen AUX.3pA.3sD.1sE / *3pA.1sE / *(3sA).3sD.1sE hands.the.from fall-ing
 I saw Miren's keys, falling from her hands (cf. French *Je ai vu les clés à Miren*)

¹⁰ This constraint is reflected in the impossibility of agreement with datives below an absolutive in multipredicate constructions, both perception verbs and small clauses (i-b) (Rezac forthc, Fernández 2011), and in ditransitives with a low dative (Etxepare and Oyharçabal forthc a, b). It seems violated in unaccusatives which do agree with datives that are below the absolutive for various tests, (i-a) (Rezac 2008b, 2011a: 185f., forthc, Albizu 2011). In section 4.6, we propose that these datives raise past the absolutive in unaccusatives but not transitives by D^o doubling of the DP that remains below the absolutive.

We saw you (as you were) painting/*paint the wall. (partial event reading)

- c. (Pareta) Jon/*Jon-ek (pareta) pintza-tzen ikusi dugu.
 wall.d[.sA] Jon[.A]/-*E paing-ing seen AUX.(3sA).1pE
 We saw Jon painting/paint the wall.

Ergative intensive pronouns force the adjunct structure for the *tzen*-gerund. This can be seen most directly through island effects. *Wh*-extraction is allowed out of complements and barred out of adjuncts.¹² Some speakers allow both absolutive and ergative pronouns as subjects of transitive in *tzen* gerunds, but ergative ones bar *wh*-extraction, (19). For them, both *tzen* complements and adjuncts license intensive pronouns, absolutive in complements under ECM, ergative in the richer structure of the adjunct which also bars *wh*-extraction. Other speakers only allow ergative intensive pronouns here, still incompatible with *wh*-extraction, (19). Their *tzen*-complements may lack the focus position entirely, unlike *tzen*-adjuncts.

(19) *Basque: Intensive pronouns, case, and extraction in tzen gerunds*

- a. Zer ikusi du Jon/*Jon-ek egi-ten t_i ?
 what see AUX.(3sA).3sE Jon[.A]/-sE do-ing
 What did he see Jon do(ing)?
- b. Zer_i ikusi zaituzte ZEU_{RE,*PA} / *ZEU-k egiten t_i ?
 what see AUX.2pA.3sE you[.A]/-sE do-ing
 What did he see Jon do(ing)?
- c. [Zer egiten]_i ikusi zaituzte ZEU_{RE,*PA} / *ZEU-k t_i ?
 what do-ing see AUX.2pA.3sE you[.A]/-sE

Word order also suggests that the presence of an ergative intensive pronoun forces the adjunct structure. Basque is an O-V language, but focus fronting requires verb adjacency to create Foc-V-O. Without intensive pronouns, neutral word orders are (20)a absolutive subject + *tzen*-gerund + perception verb and (20)b absolutive subject (perhaps focused) + perception verb + *tzen*-gerund (Arteatx 2007). The former is expected for *tzen*-complements in the neutral O-V order. The latter is compatible with two structures. One is extraction of the absolutive subject out of a *tzen*-complement (note 8) and the latter's extraposition, [[Foc/O_k [t_i V]] [t_k V-tzen]_i]. The other is absolutive matrix object plus *tzen*-adjunct, [[O_k V] [PRO_k V-tzen]]. The presence of an ergative intensive pronoun forces this second analysis. It permits only the O-V-gerund order as neutral, (20)c, not O-gerund-V, (20)d. The latter does exist, but only as topicalization of the absolutive and focus fronting of the *tzen* adjunct, (20)e (cf. Arteatx 2007: 38 note 12).

(20) *Basque: tzen adjuncts vs gerunds in word order*

- a. [Patxiku izkina horretan Miren-i drog-ak salt-zen] ikusi dut.

¹² For *wh*-extraction and pied-piping out of perception complements, see Arteatx (2007: 37f.). For the speakers he discusses, pied-piping is preferred because it avoids the ambiguity of interpreting the absolutive *wh*-word as subject or object gap; see Milner (1982) for similar phenomena in French.

- Patxiku[.A] corner this.in Miren-D drug-d.pA sell-ing see AUX.(3sA).1sE
- b. Patxiku_i ikusi dut [_{t_i} izkina horretan Mireni drogak saltzen].
- c. Patxiku ikusi dut [ardo guzti-a BERA-K bakarrik eda-ten].
Patxiku[.A] see AUX.(3sA).1sE wine all-d[.sA] HE-E alone drink-ing
- d. *[Patxiku ardo guztia BERAK bakarrik edaten] ikusi dut.
- e. [Patxiku]_{TOP} [ardo guztia (BERAK) bakarrik edaten]_{FOC} ikusi dut.

The licensing of ergatives in *tzen* adjuncts leads us to expect that they have a richer T system than *tzen* complements. This is confirmed by the progressive construction. It is formed by the particle *ari* + *be* predicating an absolutive subject of a *tzen*-gerund control complement: *DP.A_i [PRO_i V-tzen] ari BE 'DP.A_i [PRO_i V-ing] ari is'* (Ortiz de Urbina 2003a, Laka 2006a). In *tzen* gerunds with perception verbs (21), some speakers permit the progressive, but only as adjunct as shown by the impossibility of *wh*-extraction and gerund-V word order. Felser (1998: 3.3) discusses the same limitation in English perception complements and adjuncts, and proposes that it comes from their missing T-layer to host aspectual auxiliaries: *We saw John draw a circle, *We saw John be drawing, have drawn a circle.*¹³

(21) *Basque: progressive in tzen gerunds*

- a. Xabier ikusi dugu, eror-tzen ari
Xabier[.A] seen AUX.(3sA).1pE fall-ing PROG
We saw Xabier, falling. (RE, *PA)
- b. *Non ikusi duzu Jon eror-tzen ari ___?
where see AUX.(3sA).2sE Jon[.A] fall-ing PROG
Where did you see Jon falling ___? (*on embedded scope of where*)
- c. *[Xabier/Nor eror-tzen ari] ikusi dugu
Xabier[.A]/who[.A] fall-ing PROG see AUX.(3sA).1pE
We saw Xabier falling, Who did we see falling?

We conclude that *tzen* adjuncts have a richer T-system than *tzen* complements, both for ergative licensing and tense. Correlatively, *tzen* complements have their subject licensed by ECM while *tzen* adjuncts license PRO, which too has been attributed to the C/T system (Landau 2004, 2008, Sigurðsson 2008). *tzen* gerunds used as control

¹³ The *tzen* adjunct appears also to have a richer temporal structure for other purposes, but we have not investigated it in detail. It permits both partial and whole event readings, (i), unlike the English *ing* adjunct under perception (*Miren was seen drinking a litre of milk (#in one go)*) but like the English ACC+*ing* gerund (*Miren drinking a litre of milk (in one go) surprised us*). Speakers that apparently do not permit the progressive in *tzen* adjuncts may simply be omitting the particle *ari*, and on the progressive reading absolutive pronouns that they do not license otherwise (PA in (19)b) become better for them.

- (i) Miren ikusi dut litro bat esne BERA bakarrik eda-ten
Miren[.A] see AUX.(3sA).1sE litre one[.A] milk her[.A] alone drink-ing
I saw Miren herself drink/drinking a litter of milk. (*whole or partial event reading*)

complements of verbs like *lagundu* 'help' also license PRO, independent tense, and ergative intensive pronouns at the same time, like *tzen* adjuncts (Artiagoitia 2003: 170).

(22) *Basque perception verb + tzen gerund structures*

- a. perception complement: [[DP.ABS_i (____{FOC.ABS}) V-*tzen*-] see_{ABS}].
- b. perception adjunct: [DP.ABS_i see_{ABS}] [PRO_i T_{ERG} ____{FOC.ERG} V-*tzen*].
- c. control complement: [DP.DAT_i [PRO_i T_{ERG} ____{FOC.ERG} V-*tzen*] help].

These results about the ergative are parallel to ones for the English nominative. Ergative and nominative are both licensed in finite clauses but not in a class of nonfinite clauses, including perception complement gerunds. Their source is in the T-system that differentiates these clause types, not in the vP structure that they share. The intermediate T-system of control *tzen* complements and adjuncts licenses PRO and ergative and is comparable to Icelandic infinitives with PRO and nominative objects (section 4.6).

3.4 Overview

tzen gerund complements to perception verbs have led us the following conclusions:

- Ergativity is independent of the relations that the external argument has with the thematic, vP system, which are present in perception complements without ergativity.
- Ergativity comes from the T-system, which is impoverished or missing in *tzen* gerund complements to perception verbs, allowing subject Case licensing is by ECM.

In the next section, we will turn a complementary line of evidence: we will show that ergativity can depend upon raising out of the thematic domain to the T-system.

4 **Raising and remote agreement in modal structures**

4.1 The raising analysis of modals

In the last section, we have shown that ergative case and agreement disappear from the subject of transitives when the T-system is impoverished, indicating that their locus lies there and not in the thematic vP system. In this section, we will make the opposite argument from raising-to-ergative. Ergative agreement and case emerge on the subject of unaccusatives through raising to the domain of a predicate to which they bear no thematic relation. We also show that ergative agreement can occur under Agree alone, but ergative case assignment requires movement. The argument is built using the Basque raising infinitive INF + *behar* 'must, should (root, epistemic)', parallel English *must* + INF.¹⁴

¹⁴ Infinitives are the easiest structures from which to establish raising, because they allow tests such as scope and idiom reconstruction. Artiagoitia (2001ab, 2003: 4.10.1.1.9) argues that Basque also has raising with *seem*: (i) out of small clauses, difficult to demonstrate since small clauses do not lend themselves to scope and idiom reconstruction tests (Williams 1983 vs. Stowell 1991); (ii) out of finite clauses in copy-raising for some speakers, which is convincing, but makes for a difficult argument due to interference from

It has been established that English modal structures can involve raising, based on evidence from expletives, idiom chunks, and inverse scope in (23) (Wurmbrand and Bobaljik 1999, Von Stechow and Iatridou 2003, Portner 2009).

(23) *English: raising in modal + infinitive constructions*

- | | |
|--|----------------------|
| a. There must be enough time for everyone to talk. | <i>Expletive</i> |
| b. The shit must have hit the fan. | <i>Idiom chunk</i> |
| c. According to university regulations, at least one professor must supervise every student. [<i>every, must > one</i>] | <i>Inverse scope</i> |

Basque INF + *behar* constructions likewise prove to be raising constructions. They dissociate ergativity with thematic relations: the subject of the infinitive raises to the domain of *behar* with ergative case and agreement, or stays in-situ in analogue of the English expletive construction with ergative agreement but absolutive case, or with absolutive case and agreement if there is a dative intervener for agreement between it and *behar*. By raising to case and agreement or by remote agreement alone, the subject of INF + *behar* acquires ergativity whether it corresponds to transitive subject, unaccusative subject, or in one structure even transitive object of the infinitive. Thus its ergativity comes not from the thematic structure where it originates but from the functional structure introduced by *behar* 'must', specifically the T_{ERG} it brings to INF + *behar*.

We first establish that raising rather than control is involved from thematic, idiomatic, and scopal reconstruction (4.3). Then we turn to ergative-absolutive alternations of the subject of INF + *behar* that mirror raising-expletive alternations in English (4.4). They show that ergative agreement arises from Agree with T_{ERG}, but ergative case is assigned only upon raising to the Spec, T_{ERG} of *behar*, while otherwise absolutive case from v_{ABS} of INF emerges (4.5). If a dative intervenes between T_{ERG} and the infinitival subject, ergative agreement is blocked, giving an ergative-absolutive alternation due to syntactic intervention (4.6). In our overview (4.7), we add evidence from a dialect where bare VP infinitives under *behar* lead to the raising of the transitive object to ergative.

4.2 The INF + *behar* construction

Basque INF + *behar* has the following properties, illustrated in (24) (Etxepare and Uribe-Etxebarria 2009, Ortiz de Urbina 1989, 2003b: 3.5.6.1, Artiagoitia 2003: 4.10.1.2.3, San Martin 2004, Haddican 2005, Goenaga 2006, de Rijk 2008: chapter 14):¹⁵

- The main verb is in a nonfinite form known as participle or infinitive (*bidali, etorri*).
- The modality is added by *behar* 'must', historically from the noun *behar* 'need', but now morphologically distinct from nouns and partly verbal (section 5.3).

thematic uses of *seem* and the still ill-understood properties of copy-raising (for comparison with English, see Rezac 2011a: 216f.; cross-clausal agreement in (43) cements Artiagoitia's argument).

¹⁵ *Behar* also appears in other structures: (i) *tze-a* gerund CPs + *behar*, *X needs for Y to V-ing*, where *behar* introduces the external argument; (ii) INF + *behar* in some dialects where *behar* has no effect on the case or agreement of INF's subject; (iii) morphologically distinct noun *behar* 'need' (sections 4.3, 5.2).

- The infinitive and *behar* share a single finite, agreeing auxiliary (*dizkiete, dute*).
- The nonsubject arguments of the main verb have the same case and agreement as they would in a clause built on the main verb alone (*lagunei, liburuak*).
- The subject of the infinitive is ergative in case and agreement: the external argument of transitives (*bidali* 'send'), which would also be ergative with the main verb alone, and the core argument of unaccusatives (*etorri* 'come'), which would be absolutive.

(24) *Basque*: INF + *behar*

- a. Jonek eta Mirenek_k lagunej_j liburuak_i bidali behar di-zki_i-e_j-te_k.
 Jon.E and Miren.E friends.D books.A send must AUX-3pA_i-3pD_j-3pE_k.
 'Jon and Miren must send friends books.'
- b. Jonek eta Mirenek_i etorri behar du-te_i.
 Jon.E and Miren.E come must AUX-3pE.
 'Jon and Miren must come.'

The ergative case and agreement of the subject of the INF + *behar* is due to *behar*, since it affects subjects that would be absolutive without *behar*. We have three analytical options. One is *raising*, where the infinitive thematically introduces the subject, and *behar* provides its ergativity by Agree/Move without affecting its thematic relations (Davies and Dubinsky 2004). The second is *control*, where *behar* thematically introduces the ergative thematic subject, and it relates to silent thematic subject of INF by the theory of control (control of PRO, Landau 2001, or theta-to-theta movement, Boeckx, Hornstein and Nunez 2010). The third is *complex predicate*, where *behar* thematically introduces the ergative subject, and INF is a bare VP that uses the subject of *behar* by a meaning postulate of *behar* or because *behar* is part of its functional architecture (Chierchia 1984, Wurmbrand 2001, Cinque 2004, Folli and Harley 2007). We argue for the raising analysis by showing that subject can reconstruct to positions within the infinitive that are clearly below and independent of *behar*:

(25) [SU_{ERG} [[_{VP} V_{ABS} ... t_{SU} ...] *behar*] T_{ERG}] raising in unaccusative INF + *behar*

4.3 Raising to ergative: Reconstruction for interpretation

We begin by showing that INF + *behar* allows the ergative to reconstruct for thematic and scopal interpretation, as expected of raising but not control and complex predicates.

Reconstruction for thematic interpretation can be demonstrated using idioms. In English, raising allows the upstairs DP to reconstruct for idiomatic interpretation into the INF, *The shit must, is likely to hit the fan (before action is taken)*, but control does not, *The shit wanted, had a need to hit the fan*, and neither do those constructions that have been analysed as complex predicates, *The shit tried to hit the fan*. Idiomatic interpretation is incompatible with assignment of a theta-role by the higher predicate.

In Basque, we may contrast INF + *behar* 'must, need', which is transparent to agreement and scrambling and does not impose any thematic requirements on its ergative subject, (26)a, with the noun *behar* 'need' in [_{DP} [_{NP} INF *behar*_N 'need']-a_D] + 'have',

which is opaque and requires its ergative to be capable of experiencing need, (26)b (as in English). The thematic difference comes out clearly when we embed unaccusative idioms in (27): independently the subject would be absolutive, in INF + *behar* it raises to ergative, but in INF *behar-D have* it is impossible. Thus in INF + *behar*, INF is the sole source of the thematic interpretation of the subject and *behar* is a raising verb.¹⁶

(26) *Basque: INF + behar does not assign needer theta-role*

- a. Jon-ek / Harri-ak hor egon behar du.
 Jon-E stone-d.sE there be must AUX.(3sA).3sE
 Jon / The stone must, needs to be there.
- b. Jon-ek / #Harri-ak hor egon beharr-a du/dauka.
 Jon-E stone-d.sE there be must-d.sA have.(3sA).3sE
 Jon / #The stone has a need to be there.

(27) *Basque: Reconstruction for idiom interpretation (idioms underlined)*

- a. Txori erre-ak aho-ra etorri {behar du} / {#beharr-a du}.
 bird roasted-d.sE mouth-d.to come must AUX.3sE / need-d[.sA] have.(3sA).3sE
 [*Firin-faran bizitzeko* To live without worry,] things must be easy.
- b. Zazpi behi makal-ek etorri {behar dute} / {#beharr-a dute} oraindik
 seven cow feeble-E come must AUX.3pE / need-d[.sA] have.(3sA).3pE still
 [*Adi ibili* Be careful!] Hard times must still be ahead [*euskaldunentzat* for Basques].
- c. Sabel-ak oso zimurtuta egon {behar du} / {#beharr-a dauka}.
 belly-d.sE very folded/creased be must AUX.3sE / need-d[.sA] have.3sA.3sE
 There must be great hunger [*zabor-ontzietan janari bila hasteko* to start looking for food in garbage cans].
- d. Pilota-k punpe-ra etorri {behar du} / {#beharr-a dauka} oraindik.
 ball-d.sE bounce-d.to come must AUX.3sE / need-d[.sA] have.3sA.3sE still
 [*Ez larritu, konponduko da* Don't worry, it will be alright.] It still has to be fitted.

Reconstruction for scope likewise shows that INF + *behar* is a raising and not control construction. Inverse scope is allowed in raising, *A guard seemed/was expected ___ to stand in front of every building*, but not control, *A guard decided/tried/wanted PRO to stand in front of every building*. The explanation involves three elements. First, scope interpretation is so bounded that quantifiers overtly in the infinitive cannot scope outside. Second, A-movement to a nonthematic position permits scope interpretation either in the post-movement surface position, *surface scope*, or reconstruction to the pre-movement position, to give *inverse scope* below quantifiers in the infinitive or on the path of

¹⁶ Beside the two structures of interest, raising $SU_i [t_i (O) INF] \textit{behar}$ and control $SU_i [[PRO_i (O) INF] \textit{behar}_N]-D.SG \textit{have}$, there is a third based on the former that may mimic the latter: the object of *have* (or the subject of *be*) related to a concurring secondary predicate which is built from raising INF + *behar* in a manner independently available in Basque, $A_i O_k [OP_k [PRO_i e_k INF] \textit{behar}]-D.\phi_k \textit{have}$ (Goenaga 2006: 407f.). However, for some speakers raising INF + *behar* allows *behar* to concord with the object of INF (e.g. (28)a with *beharr-ak must-D.pA*). The existence of both agreeing and nonagreeing option for raising INF + *behar* fits its possible origin in secondary predication (De Rijk 2008: chapter 14, see section 5.3).

movement. Third, control does not let a quantifier that gets a theta-role from the upstairs verb to be interpreted scopally in the infinitive. This is because it binds the pronoun-like PRO in the infinitive, on the classical control theory, or because it must be interpreted where it has all its theta-roles, on the movement theory of control (Hornstein 1998).¹⁷

Basque prefers surface scope, but inverse scope is available in the preverbal focus position (cf. Kitagawa 1994, Deguchi 2006 for Japanese). This gives inverse scope with but not without focus, (28). In control constructions, inverse scope is impossible, (29).

(28) *Basque: Inverse scope under focus with ERG and ABS-subject Vs*

- a. IRAKASLE-REN BAT-EK zaindu ditu ikasle guzti-ak.
 teacher-G one-sE supervised AUX.3pA.3sE student all-d.pA
 SOME TEACHER OR OTHER supervised every student.
 [some > every, every > some]
- b. Irakasle-ren bat-ek ikasle guzti-ak zaindu ditu.
 teacher-G one-sE student all-d.pA supervised AUX.3pA.3sE
 Some teacher or other supervised every student.
 [some > every, *every > some, focus impossible]
- c. Nik dakidala, IRAKASLE-REN BAT mintzatu da ikasle guzti-ekin.
 As far as I know teacher-G one[.sA] talked AUX.3sA student all-d.p.with
 As far as I know, SOME TEACHER OR OTHER talked with every student
 [some > every, every > some]
- d. Nik dakidala, irakasle-ren bat ikasle guzti-ekin mintzatu da.
 As far as I know teacher-G one[.sA] student all-d.p.with talked AUX.3sA
 As far as I know, some teacher or other talked with every student
 [some > every, *every > some, focus impossible]

(29) *Basque: Inverse scope impossible in control structures*

- a. IRAKASLE-REN BAT-EK erabaki du ikasle guzti-ak zaintzea.
 teacher-G one-sE decided AUX.3sE student all-d.pA supervising
 SOME TEACHER OR OTHER decided to supervise every student.
 [some > every, *every > some, ERG-subject control verb]
- b. IRAKASLE-REN BAT ahaleginu da ikasle guzti-ak zaintzen.
 teacher-G one[.sA] tried AUX.3sA student all-d.pA supervising
 Some teacher or other tried to supervise every student.
 [some > every, *every > some, ABS-subject control verb]

In INF + *behar*, the ergative subject may take surface scope, and under focus inverse scope. Example (30) shows scope below *behar* 'must' and quantifiers in the infinitive for subjects that would independently be ergative; example (31) for those that would be absolutive, save that the latter's scope below *behar* is deferred to the next section.

¹⁷ Logically as well as empirically, reconstruction below a modal verb is a better test since it does not rely on the hypothesis that quantifiers cannot scope out of infinitives; for defence of the latter in the control-raising distinction, see Cecchetto (2004) for a defence as well as contrary literature cited there.

- (30) *Basque: Scope diminishment in INF + behar where subject of INF would be ERG*
- a. IRAKASLE-REN BAT-EK zaindu behar ditu ikasle guzti-ak.
 teacher-G one-sE supervise must AUX.3pA.3sE student every-d.pA
 Some teacher or other must supervise every student.
 [some > every, every > some]
- b. AUSTRIAR BAT-EK irabazi behar du
 Austrian one-sE win must AUX.3sE
 An Austrian needs to win/come (*Munduko Txapelketan Austriak domina gehien izateko* for Austria to have the most medals in the World Championship).
 [one > must, must > one]
- (31) *Basque: Scope diminishment in INF + behar where subject of INF would be ABS*
- a. Nik dakidala, IRAKASLE-REN BAT-EK mintzatu behar du
 As far as I know, teacher-G one-sE talk must AUX.3sE
 ikasle guzti-ekin.
 student all-d.p.with
 As far as I know, SOME TEACHER OR OTHER must talk with every student.
 [some > every, every > some]
- b. BERTAKO BAT-EK ezkondu behar du imigrante guzti-ekin.
 local one-sE marry must AUX.3sE immigrant all-d.p.with
 (*Konponbide bakarra dugu* We have only one solution:) A LOCAL must marry with
 each imigrant (*hemen gelditu ahal izateko* in order for him/her to be able to remain).
 [one > every, every > one]

This pattern follows from the raising analysis (25): the subject originates in the infinitive where it can reconstruct below *behar* and clausemate quantifiers. Control does not permit reconstruction, in English or Basque. Predictions of the complex predicate analysis are less clear; insofar as constructions like *#A guard tried to stand in front of every building* instantiate it, it too does not permit scope reconstruction.

We have seen that *behar* does not assign a theta-role despite assigning ergative, leaving INF as the domain of theta assignment. This is supported by evidence from reflexive detransitivizations that show INF is a complete vP. One way to form reflexives in Basque is eliminate one argument of a transitive, leaving the other absolutive in form and reflexive or reciprocal in interpretation (32)a (Etxepare 2003a: 4.1.2.9). Analogous formations such as Romance *se*-constructions have been shown to project their argument in Spec,v, as the external rather than internal argument (Reinhart and Siloni 2004). In Basque similar evidence exists in the impossibility of partitive case and existential bare plurals, both only available to internal arguments (Albizu 2001a, Etxepare, Albizu and Rezac in prep.). When detransitivization occurs in with INF + *behar*, (32)b, the remaining argument is ergative rather than absolutive. This follows if detransitivization occurs in INF, from which the resulting argument raises to the ergativity brought by *behar*, as it does from unaccusatives and unergatives. Hence INF is a vP, the domain in which detransitivization occurs (Etxepare and Uribe-Etxebarria 2009: 342-3).

(32)

- a. Zerrenda-tik kendu naiz.
list-d.from remove AUX.1sA
I removed myself from the list.
- b. Zerrenda horta-tik kendu behar nu-ke.
list that-from remove need AUX.1sE-HYP
I would like to remove myself from that list.

(Etxepare and Uribe-Etxebarria 2009: 343)

We conclude that in INF + *behar*, INF is the vP domain of theta-assignment and *behar* brings T_{ERG} to raise INF's subject to ergative without assigning a theta-role, (25). T_{ERG} thus behave just as T_{NOM} does in English raising. In the next subsection, we will see that the subject of the infinitive can remain in-situ while still relating to T_{ERG}, as occurs with T_{NOM} in English expletive constructions.

4.4 Expletive and raising structures: In-situ absolutive case + ergative agreement

Goenaga (2006: 461-3) observes contexts where some unaccusatives in INF + *behar* can occur with a subject absolutive in case but ergative in agreement. We will show that the distribution of absolutive and ergative case depends on scope, in the same way as high and low subject positions in *Firemen must be available -- There must be firemen available*. This ergative-absolutive alternation occurs without any change in thematic relations, again divorcing ergativity and the theta-system. Based on the parallelism with high-low subject positions in Germanic, we will propose that subjects with absolutive case but ergative agreement occur in the structure (33)a, remaining in INF but Agreeing with T_{ERG} brought by *behar*. Subjects ergative in both case and agreement raise, (33)b.¹⁸

(33) *INF + behar structures: expletive vs. raising*

- a. (expletive) [[**3s/p.ABS** INF_{unacc}] behar] T_{ERG}=AUX.**3s/pE**
b. **3s/p.ERG_i** [[*t_i* INF_{unacc}] behar] T_{ERG}=AUX.**3s/pE**

Example (34) introduces the ergative-absolutive alternation, its interpretive correlates, and its restriction to main verb whose subject would independently be absolutive.

(34) *Basque: Ergative-absolutive alternations in INF + behar*

- a. **Ur-a/-ak** isuri/atera behar **du** (presioa jaisteko).
water-d[.sA]/-d.sE flow/come.out must AUX.3sE
ERG, specific: The water must flow out, in order (to descend the pressure).
ERG, generic/kind: Water (as substance) must flow out (to descend the pressure).
ABS, existential: There must flow out some water (to descend the pressure).

¹⁸ Our analysis is inspired by Goenaga's. His subjects are 3SG save in one case; we add 3PL to demonstrate ergative agreement. 1st/2nd person is impossible due to the interpretive conditions we discuss below.

- b. **Ur-*a/-ak** ihes egin behar **du** (*presioa jaisteko*).
water-d[.sA]/-d.sE escape do must AUX.3sE
ERG: specific, generic/kind: (The) water must escape (to descend the pressure).
- c. **Ur-*a/-ak** irakin behar **du** (*leihoak lurruntzeko*).
water-d[.sA]/-d.sE boil must AUX.3sE
ERG, specific, generic/kind: (The) water must (be) boil(ing) (for windows to cloud).
[%]ERG, existential: Some water must (be) boil(ing) (for windows to cloud). (PA/*RE)

In (34)a, the verbs are unaccusative *isuri* 'flow', *atera* 'come out'. Their subject would independently be absolutive, and as *NP* with the determiner *-a-*, it would allow definite, generic/kind, and at least for plurals and masses existential readings (Etxeberria 2010, forthc). In *isuri/atera + behar*, this subject is absolutive under the existential reading, translated by the *there* construction, and ergative under the definite and generic/kind readings, translated by the raised subject construction. In (34)b, the verb is the transitive or unergative *ihes egin*. Their subjects are ergative and lack the existential reading for *NP-a*. Both properties are retained by INF + *behar*. In (34)c the verb is *irakin* 'boil', whose unaccusative/unergative status is debatable, but it takes ergative subjects without the existential reading for *NP-a* (section 2). Again, both properties remain in INF + *behar*. Thus the absolutive in INF + *behar* is restricted to those verbs whose subject would independently be absolutive. The ergative-absolutive case alternation affects scopal and not thematic interpretation. Agreement is always ergative.

We will argue that absolutive case reflects a low subject position and ergative case a high one. These positions give rise to existential versus presuppositional or quantificational readings, and to quantifier scope below versus above 'must', as seen for subjects in English expletive versus raised-subject constructions and similarly in German and Dutch for low versus high subjects. We need a framework in which to discuss these position-interpretation correlations. For concreteness, we will use that of Diesing (1992) and Kratzer (1995), but consequences would be similar on other ways to differentiating readings by position (e.g. Cohen and Erteschik-Schir 2002, Etxeberria 2009).

In the Diesing-Kratzer model, the clause is divided into three layers: an operator such as generic *Gen*; its restrictor above the VP, where it binds free variables; and the VP as its nuclear scope, where free variables are bound by existential closure. Bare NPs and DPs with *D* a cardinality predicate introduce variables, interpreted according to their position. In the VP, (i) *There are (many) professors available*, they are bound by existential closure, giving the existential, cardinal reading $\exists X : \text{professor}(X) \text{ and available}(X) \text{ (and many}(X))$. Outside the VP, (ii) *(Many) professors ~~Gen~~ are available*, they are bound by the operator to give the presuppositional reading $\text{Gen}X : \text{professor}(X) \text{ (and many}(X)) \rightarrow \text{available}(X)$. QR in (i) for the presuppositional reading is unavailable, but reconstruction in (ii) for the existential reading sometimes is. Ds like *many* have a second lexical entry as weak quantifiers, which leave the VP for type reasons. The quantificational interpretation leads to presuppositional and proportional interpretations of (iii), *Many professors are available* as $\text{Many}X : \text{professor}(X) \rightarrow \text{available}(X)$. Strong quantifiers like *every* only have this quantificational reading. Definites are interpreted as *tNP* and leave the VP to escape discourse-new interpretation under existential closure

(Diesing and Jelinek 1995). The VP-internal existential and cardinal readings are only available to internal arguments, which originate in the VP.¹⁹

Let us now turn to INF + *behar*. Basque nominal arguments require a determiner. We will first consider the determiner *-a* in 'be' + *behar*. The ergative NP-*a*- in (35) has the definite reading of English *the NP*, and the generic/kind reading of English bare plurals and masses in the raised-subject construction. The absolutive NP+*a* in (36) has the existential reading of English bare plurals/masses and *a(n) NP* in the expletive construction. In these examples, 'be' occurs with a locative 'coda'. In pure assertions of existence, (37), NP-*a* is also absolutive. Thus the ergative correlates with high subject position readings, corresponding to English raised subjects, and the absolutive with low ones, English expletive associates. Agreement is ergative throughout.

(35) *Basque: NP-a in 'be' + coda + behar: ergative generic, kind, definite*

- a. **Pintxo-ek** on-a-k izan behar **dute** Euskal Herrian.
 pintxos-d.pE good-d-pA be must AUX.3pE Basque Country.the.in
 Definite: The pintxos must be good in the Basque Country.
 Generic: Pintxos must be good in the Basque Country.
 *Existential: There must be pintxos *(that are) good in the Basque Country.
- b. **Ardo on-a-k** garbi-a eta distiratsu-a izan behar **du**.
 wine good-d-sE clear-d[.sA] and bright-d[.sA] be must AUX.3sE
 Definite: The good wine must be clear and bright.
 Generic: Good wine must be clear and bright.
 *Existential: There must be good wine *(that is) clear and bright.
- c. Tabernetan, **pintxo-ek** mahai gainean egon behar dute.
 in.the.taverns pintxo-d.pE table on.the.top be(LOC) must AUX.3pE
 Definite: In taverns, the pintxos must be on the table.
 Generic: In taverns, pintxos must be on the table (*bezeroek konsumitzeko*, for customers to consume them).
 *Existential: In taverns, there must be pintxos on the table.

(RE/PA)

(36) *Basque: NP-a in 'be' + behar*

- a. Hemen **sagardo on-a-(*k)** egon behar **du**.
 here wine good-d[.sA]/*-d-sE be(LOC) must AUX.3sE
 Existential only: There must be good cider here. (cf. *Good cider must be here.)
- b. **Pintxo on-a-k/*on-ek** egon behar **dute** hemen.
 pintxo good-d-pA/good-d.pE be(LOC) must AUX.3pE here

¹⁹ For the impossibility of QRing *there*-associates, different proposals exist (Heim 1987, Chierchia 1995, Bobaljik 2002). Limits on reconstruction for the existential reading, seen in Basque as well, are not well understood (Francez 2009, McNally 2011): *There are hunters/fires in the forest, Hunters/??fires are *(in the forest)*. The need of different types of predicates one or the other reading is orthogonal to this system and different views are compatible with it (Diesing 1992, Kratzer 1995, Chierchia 1995). In our examples, stage-level 'be' prefers the existential reading, and individual-level 'be' disprefers them. In western dialects the two types of 'be' have different form, stage-level *egon* 'be(LOC)' and individual-level *izan* 'be' (Spanish *estar, ser*), both requiring absolutive subjects independently (Etxepare 2003a: 4.1.2.2.1, Zabala 2003).

Existential only: There must be good pintxos here (if people are to come).’ (cf. *Good pintxos must be here.)

- c. Udaran, **sekulako usain-a>(*k)** egon behar **du** hor.
 in.summer huge smell-d[.sA]/*D-sE be(LOC) must AUX.3sE here
 Existential only: In the summer, there must be a huge smell there. (cf. ??In the summer, a huge smell must be there.)

(RE/PA)

(37) *Basque: NP-a purely existential*

Lehenik eta behin, **baldintza demokratiko-ak** egon behar **dute** prozesu
 first of all, conditions democratic-d.pA be must AUX.3pE process
 hori egiteko. **Prozesu horre-k** prozesu demokratiko-a izan behar **du**.
 this[.A] to.do. process this-E process democratic-d[.sA] be must AUX.3sE
 (*Zein da bidea mehatxurik gabeko egoera lortzeko?* What is the way to achieve
 this situation without threats?) First of all, there must be democratic conditions to
 do this process. This process must be a democratic process.

(http://www.berria.info/m1/testua_ikusi.php?id=4891&mota=berria; RE/PA)

To model these readings, let us combine the Diesing-Kratzer model with the interpretation of *NP-a* as definite tNP or typeshifted NP(x) with a free variable (Etxeberria 2009). Existential readings with absolutive *NP-a* arise when the variable of NP(x) is within the scope of existential closure, corresponding to English existential constructions. Generic readings with ergative *NP-a* arise when the variable is outside the scope of existential closure, corresponding to English bare plurals and *a(n)* NPs in the raised subject construction. Definite tNP readings with ergative *NP-a* also require leaving existential closure, corresponding to English raised *the NP*. Thus the ergative correlates with a high subject position, the absolutive with a low one. Existential readings under reconstruction from Spec,TP are not available in the English translations, and correspondingly in Basque they are not available for the ergative.

Weak determiners like *many* give rise to similar contrasts. The absolutive can only have an existential reading, favoured in the preverbal focus position of stage-level 'be', (38)a, (38)b. The ergative prefers presuppositional or partitive readings with proportional quantification, favoured by the nonfocus position with stage-level 'be' in (38)c or by individual-level 'be' in (38)d. The same contrast appears with *isuri* 'flow', *atera* 'come out' in (34)a and *etorri* 'come' in (39). Thus the absolutive reflects a position below existential closure at the VP, the ergative above it. Agreement is ergative throughout.

(38) *Basque: NP asko in 'be' + behar*

- a. **?Pintxo asko** egon behar **dute** hemen.
 pintxo many.A be must AUX.3pE here
 ABS, existential only: There must be many pintxos here.
- b. Egunotan, **jende asko** egon behar **du** gaixorik.
 these.days people many.A be must AUX.3sE sick
 ABS, existential: These days, there must be many people sick.

- c. (Lehen aipatutako) **pintxo asko-k** hemen egon behar **dute**.
 earlier mentioned pintxo many-E here be must AUX.3pE
 ERG, definite/partitive: The (aforementioned) many pintxos must be here; Many of the (aforementioned) pintxos must be here.
- d. **Gutxienez hiru pintxo(?-k)** on-a-k izan behar **dute**.
 at.least three pintxo[.sA]/?sE good-d-pA be must AUX.3pE
 %ABS, existential only: At least three pintxos must be good (*jendea tabernara hurbiltzeko*, in order for people to come to this tavern).
 ERG, partitive %only: At least three of the pintxos must be good (*jendea tabernara hurbiltzeko*, in order for people to come to this tavern).
 ((a-c) RE/PA; (d) RE; for PA, ERG only with both readings)

(39) *Basque: NP asko in 'happen', 'come' + behar*

- a. Bihar, **zer(*k)** gertatu/pasatu behar **du?**
 tomorrow what.A/*E happen must AUX.3sE
 Tomorrow, what must happen?
 (RE/PA; cf. Goenaga 2006:463)
- b. Bihar, **dudarik gabe,** **ikasle asko(-k)** etorri behar **dute**.
 tomorrow, without a doubt student many.A/E come must AUX.3pE
 %ABS, existential, cardinal: Tomorrow, without a doubt, there must come many students (*bilkura arrakastatsua izatea nahi badugu*, if we want the meeting to be successful). [100/10000 is enough if 100 is large for a meeting.]
 ERG: presuppositional, partitive, proportional: Tomorrow, without a doubt, many (of the) students must come, if we want the meeting to be successful. [The set of students is contextually familiar, e.g. students at our university, and the proportion of those that come is significant, e.g. 5000/10000 rather than 100/10000.]
 (RE, cf. Goenaga 2006: 461; for PA, ERG only with both readings)

There is independent evidence for the low position of absolutive subjects from their scope with respect to *behar* 'must', rather than from existential interpretation. In (40), *gutxi* 'few' takes scope below 'must' if absolutive, meaning 'It is necessary that a small number VP', but above 'must' if ergative, 'The number that must VP is small'.²⁰

(40) *Basque: Scope of gutxi 'few' with respect to behar 'must'*

- a. Politikari gutxi(-k) etorri behar dute.
 politicians few[.A]/-E come must AUX.3pE
 %ABS: It's necessary that few politicians come (because otherwise the manifestations would become too political).
 ERG: Few politicians are obliged to come (the manifestations will go on in any case).
- b. Arkeologo gutxi(-k) etorri behar dute [leizezulo-a ireki-tze-ko].
 archaeologist few[.A]/-E come must AUX.3pE cave-d.sA open-ing-for

²⁰ We thank B. Laca for suggesting 'few'. Basque *gutxi* requires focus (Etxepare 2003b: 4.5.4.2).

% ABS: For the cave to be opened, it's necessary that few archaeologists come (if too many come, the danger of damage to the cave is too great, it will be kept closed).

ERG: For the cave to be opened, few archaeologists are obliged to come (the interest of one or two is enough to merit the cave's opening).

(RE; for PA, ERG only with both readings)

Let us take stock of these results. INF + *behar* with some unaccusative main verbs allows absolutive-ergative case alternation on the subject. The absolutive has a low position interpretation and the ergative a high one, closely corresponding to English expletive associate vs. raised subject. Agreement is ergative. We set out our theory of these constructions in the next subsection.²¹

4.5 Case, agreement and position in INF + *behar*

INF + *behar* is a raising construction with two subject positions, a low one associated with absolutive case and a high one with ergative, with ergative agreement in both. We propose the analysis in (41). The infinitive is vP with the absolutive locus v_{ABS} and as plain v. *Behar* contributes the TP with the ergative locus T_{ERG} . Agree of T_{ERG} results in ergative agreement, and optionally in movement with ergative case assignment.

(41) Structure of INF + *behar*

²¹ When the ergative-absolutive alternation is available, the absolutive is limited to existential readings as in English expletive constructions, and the ergative prefers or requires high readings when the absolutive is available, as also in English raised-subject constructions (note 19 for English). There is some variation in the availability of absolutive subjects, noted in the foregoing examples, and it mirrors that of Germanic expletive constructions: for some English speakers they are restricted to stage-level *be* (Kayne 2008: section 14), others accept a range of unaccusative (Levin and Rappaport Hovav 1995), and Germanic languages with a richer middle field also individual-level *be* and transitives (Koster and Zwart 2000, Vangsnes 2002). Conversely, Goenaga (2006: 461) notes absolutive subjects in INF + *behar* that cannot use the expletive construction in English: (i) uses the expletive construction in Spanish and French; (ii) involves functions rather than individuals may involve 'weak definites' that also sometimes occur in expletive constructions (Poesio 1994). We thank A. Falaus and U. Etxeberria for discussion.

- (i) Itxaso gaizto xamarr-a-(*k) egon bear du
 sea bad rather-d[.sA]/*-d-sE be(LOC) must AUX.3sE

The sea must be rather bad.

(Spanish *Tiene que haber una mar bastante brava*, French *Il doit y avoir une mere plutôt terrible*)

- (ii) (a) Oraintxe laster izan behar du meza(?k) / gure afari-a(?-k).
 right.now soon be must AUX.3sE mass.D[.sA]/?D.sE our dinner-d[.sA]/?D-sE

(also: Oraintxe laster meza(?k) / gure afaria(?k) izan behar du)

(The) mass / our dinner must be right now.

(French *Il doit y avoir la messe / notre dinner tout de suite, mais on n'y va pas.*)

- (b) Etxe onetan izan bihar du Goiarriarra morroi-a
 house in.this be must AUX.3sE G. servant-d[.sA]

The servant [whoever is the servant, not a particular one] in this house must be a Goiarrian.

- a. (EXPL) T_{ERG} [vP-INF v_{ABS} ... SU_{ABS} ...] (Unacc: T_{ERG} phi-Agree, *case)
 b. SU_{ERG} T_{ERG} [vP-INF v_{ABS} ... t_{SU} ...] (Unacc: T_{ERG} phi-Agree, case)
 c. SU_{ERG} T_{ERG} [vP-INF t_{SU} v_{ABS} ... O_{ABS} ...] (Trans: T_{ERG} phi-Agree, case)

We will first examine the structure of the infinitive and then the TP. In INF + *behar*, INF is a vP: a complete thematic domain without its own temporal reference or temporal adverbs, sentential negation, preverbal focus position, and transparent to agreement, (42)a. INF may also occur to the right, *behar* + INF, and then it can be a richer TP that permits these elements and is opaque to agreement, (42)b (Etxepare and Etxebarria 2009). Its focus position can host intensive pronouns anaphoric to the subject discussed in section 3.3, like raising and control infinitives in Romance (Belletti 2008, Szabolcsi 2010). From these pronouns, we can see in (42)b that the TP INF of *behar* + INF has its own source of absolutive case, since *bera* is absolutive with unaccusatives, although anaphoric to the ergative subject of *behar* + INF (just as control *tzen* gerunds have been seen to have their own source of ergative case, 3.3).²²

(42) *Basque: Nonfinite complements of behar: vP vs. TP*

- a. **INF + behar:** vP ⇒ *own subject, *focus, *negation, *tense, transparent to AGR
 [(*BERA-K) egin / (*BERA) etorri] behar du Jon-ek.
 HIM-sE go HIM[.sA] come must AUX.3sE Jon-s.E
 Jon must come.
- b. **behar + INF:** TP ⇒ *own subject, √focus, √negation, √tense, opaque to AGR
 Jon-ek_i behar du [BERA_i etorri / BERA-K_i egin].
 Jon-sE must AUX.3sE HIM[.sA] come HIM-sE do
 Jon must come / do it HIMSELF.

Low-position absolutive subjects of INF in INF + *behar* and absolutive intensive pronouns in *behar* + INF are only permitted for unaccusatives. This indicates that the absolutive locus of both types of INF and of finite clauses is the same, rather than being specific to nonfinite structures like the subject accusative of English *for-to* infinitives and ACC+ing gerunds. This locus should be a head in the vP, because the INF of INF + *behar* lack higher material including tense, focus, and negation. We will call the head v_{ABS} as shorthand for a range of options such as v_{ABS}, V_{ABS}, v+V_{ABS} (cf. Chomsky 2008 on accusative), or Asp_{ABS} (Laka 2000). These choices correctly let the absolutive locus Agree with the internal argument in its c-command domain but not the external one outside it (Rezac 2003). The intensive pronoun of *behar* + INF (42)b is an overt realization of absolutive Agree in INF independent from that of *behar*, while in INF + *behar* we can see it on the subject itself if it stays low.

Absolutive case from v_{ABS} is only available to subjects with low position readings, those that remain within INF. Higher subjects get ergative case, and all subjects get ergativity agreement. Ergativity is brought by *behar*, since it is independent of the

²² Some also permit the ergative: *Jonek behar du berak_{RE,*PA} etorri / berak egin / *bera egin*, apparently by Case transmission (Sigurðsson 2008, Landau 2008).

transitive or unaccusative character of the main verb. *Behar* also contributes temporal, negation, and focus structure above INF. We thus localise ergativity in T_{ERG} , shorthand for alternatives such as Fin_{ERG} , converging with our conclusions in section 3.

Ergative agreement of T_{ERG} behaves like nominative agreement of T_{NOM} in English or Icelandic (3)-(5): it occurs with subjects in both high and low positions. Thus it fits the profile of Agree of Chomsky (2000), finding a goal in its c-command domain and optionally raising it. Ergative case, by contrast, does not behave like nominative or accusative. The latter are assigned to the goal of Agree whether raised or in-situ in (3)-(5). The ergative only appears on high position subjects, raised out of INF. We conclude that ergative Case is assigned if and only if Agree with T_{ERG} is accompanied by movement to $\text{Spec}, T_{\text{ERG}}$. We discuss the mechanism of this 'marked' Case in 5.2

Since low-position subjects get absolutive from INF yet Agree with T_{ERG} from *behar*, we posit a divorce between agreement and case: T_{ERG} may Agree with a DP that gets absolutive in a lower clause. We return to the mechanics in section 5.2. Here we wish to introduce a remarkably parallel construction that shows some of the relevant properties more clearly because it involves two finite clauses: cross-clausal agreement and copyraising in CP + *seem*. It may be introduced by its English analogue (43)a. Matrix *seem* agrees with a nominative that agrees and get Case in a lower finite clause, beside an alternative with copy-raising to the matrix clause (Potsdam and Runner 2001, Rezac 2011b). The Basque construction is illustrated in (43)b. Matrix *seem* shows ergative agreement with an absolutive that gets Case and agrees in a lower finite clause, Rezac (2011a: 216), beside a (copy-)raising alternative analysed by Artiagoitia (2001ab).

(43) *Agree with a case-bearing, agreeing goal*

a. There **seem** like there **are three books** on the table.

(cf. copy-raising **Three books_i seem like they_i are** on the table)

[NOM Agree with 3PL NOM across finite clause]

b. [**Kontu asko(*k)** hobetzen ari **dir-ela**] ematen **dute**.
 matter many.A improving PROG AUX.3pA-that seeming AUX.3pE
 Many matters seem like they are improving. (RE)

(cf. copy-raising **Kontu-ek_i** 'matters-d.pE' [*e_i* hobetzen ari **dir-ela**] ematen **dute**.)

[ERG Agree with 3PL ABS across finite clause]

The parallelism with INF + *behar* is clear: ergative agreement occurs with a subject that remains in a lower clause and participates in the absolutive Agree/Case relationship there, beside (copy-)raising into the matrix as ergative. The very existence of ergative agreement with absolutives in a lower clause is striking evidence against the IEH as far as ergative agreement is concerned. The matrix ergative agreement cannot be analysed as pronoun thematically distinct from the absolutive, because it would incur Condition C (*There/*They_i must be, seem to be many people_i here*, Chomsky 1981). Pure phi-feature transmission from the subject to the higher clause must be involved: Agree. Ergative agreement thus can in no wise depend on a thematic relationship with the agreeing DP.

In both INF + *behar* and 'seem' + CP constructions with low absolutives, it is unclear whether the matrix position available for raising is occupied by an expletive, as in

English. There is in Basque evidence for ergative expletives (Artiagoitia 2001ab, Etxepare 2003c: 175 note 4, Albizu and Fernández 2006: 82, Albizu 2007b, Ortiz de Urbina 2003c: 4.7.1.2). In (44), the clausal argument of 'be worth' combines with 3sE agreement *du* whether it is ergative, absolutive, or partitive which never controls agreement. It proves difficult to show that true expletive rather than quasi-argument is involved (Chomsky 1986: 92 on *seem* vs. *be likely*; on pro-CP *it*, also Pullum and Postal 1999; on the Basque expletive here, Oyharçabal 1992 vs. Artiagoitia 2001a).

(44) *Basque: ergative expletive*

Ez du balio goizegi atera-tze-ak / atera-tze-a / atera-tze-rik
 not AUX.3sE be.worth.it too.early go.out-ing-d.sE / -d[.sA] / -PART
 It is not worth going out too early.

(Albizu and Fernández 2006: 82)

4.6 ERG-ABS alternation by intervention

There is one context in which the subject of INF + *behar* is absolutive in both case and agreement, independently of interpretation: when an unaccusative main verb has a dative argument (Ortiz de Urbina 2003b: 3.5.6.1.2, Goenaga 2006, Albizu and Fernández 2002, 2006). Albizu and Fernández (2002) propose that the dative intervenes between the unaccusative subject and T_{ERG}. We develop a version of this idea here. The phenomenon shows an ergative-absolutive alternation dependent on a purely syntactic factor, independent of both the scopal factors seen so far and of any thematic factors.

The phenomenon is illustrated in (45). The verb *hurbildu* 'approach' takes an absolutive subject S and optionally a dative goal of motion. When embedded in INF + *behar*, S without the dative is ergative in case and agreement, (45)a, save on the existential reading discussed earlier. However, when the dative is present, S is absolutive for *both* case and agreement, independently of interpretation, (45)b. Other datives with unaccusatives have the same effect, including experiencers, (45)c, and possessors, (45)d.

(45) *Basque: unaccusative + dative in INF + behar*

- a. Bertsolari-ek gehiago hurbildu behar dute.
 poet-d.pE more approach must AUX.3pE
 The poets must come closer.
- b. Bertsolari-ak/*ek Miren-i gehiago hurbildu behar zaizkio / *diote.
 poet-d.pA/*d.pE Miren-sD more approach must AUX.3pA.3sD / *3sD.3pE
 The poets must come closer to Miren.
- c. Bertsolari-ak/*ek Miren-i gehiago gustatu behar zaizkio / *diote.
 poet-d.pA/*d.pE Miren-sD more like must AUX.3pA.3sD / *3sD.3pE
 Miren must like the poets more (The poets must please more to Miren).
- d. Bankari-a-ri orain erori behar zaizkio giltz-ak lurrera
 banker-d-sD now fall must AUX.3pA.3sD key-pA to.the.ground
 Now the banker's keys must fall to the ground (*lapurreta nahi bezala ateratzeko* for the theft to succeed as desired).

It is clear that the case of S in function of a dative does not depend on the thematic relations of S: the interpretation of absolutive S with a dative under *behar* does not differ from that of ergative S without a dative under *behar* and from unembedded S whose case does not depend on a dative's presence. The dative conditions the case of S syntactically.

The Basque ergative-absolutive alternation has a striking parallel in an Icelandic accusative-nominative one. The verb *gefa* 'give' in (45) may use either dative recipient > theme or theme > dative structure, and the higher argument raises to passive subject (Holmberg and Platzack 1995, Collins and Thráinsson 1996, Jónsson 1996: 4.5.4, Anagnostopoulou 2003: 3.7.1, 3.7.3). When the theme > dative passive is embedded under an active ECM verb, (47)a, the theme subject regularly gets accusative. However, when the dative > theme passive is placed under ECM, (47)b, the theme is nominative. This nominative under ECM only emerges in dative > DP complements. With the dative absent in (47)c, the accusative reappears, although the theme is in the same low position as in (47)b. This is general for ECM of dative subject + DP (Andrews 1982: 481, 1990: 211, 220, 2010, Freidin and Sprouse 1991: 407, Maling and Sprouse 1995: 177, 180, Jónsson 1996: 4.7.2, Sigurðsson 2000: 97ff., Frampton and Gutmann 1999: 3.3.1, Rezac 2004: 5.4, Nomura 2005: 3.6.4, Hiraiwa 2005: 70f.).

(46) *Icelandic: ditransitive, active and passive*

- a. Han gaf konunginum ambáttina. ~ Hann gaf ambáttina konunginum.
 he.NOM gave king.the.D maidservant.the.ACC
- b. Jóni_i voru gefnir t_i þessir sokkar. ~ Þessir sokkar_i voru gefnir t_i Jóni.
 Jon.DAT were given these socks.NOM

((a) Anagnostopoulou 2003: 113, (b) Jónsson 1996:147f.)

(47) *Icelandic: ECM of passive (+ dative)*

- a. Ég taldi **hestana_i** hafa verið **gefna** Jóni t_i.
 I believed the.horses.ACC to.have been given.ACC.PL Jon.DAT
- b. Ég taldi Jóni_i hafa verið t_i **gefnir** **hestarnir**
 I believed Jon.DAT to.have been given.NOM.PL horses.NOM
- c. Ég taldi hafa verið gefna **of marga hestana**
 I believed to.have been given.NOM.PL too many horses.NOM

((a-b) Maling and Sprouse 1995: 180, (c) Hiraiwa 2005: 71)

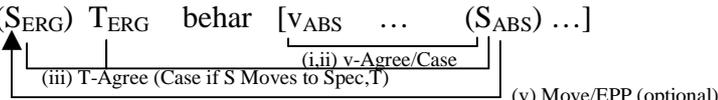
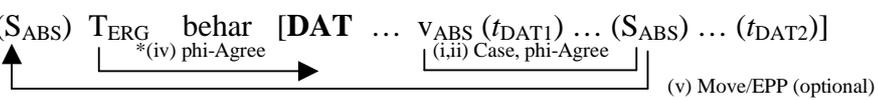
This paradigm may be analysed as follows (Sigurðsson 2000, Frampton and Gutmann 1999, Rezac 2004, Nomura 2005). Agree between ECM v and its goal in (47)b is blocked across the dative as intervener or as the subject of a phase, but not in (46)a where v, its goal, and the dative are in the same vP phase or minimal domain. The nominative comes from the infinitive, which is capable of assigning nominative to objects in Icelandic. This is the approach that we will propose for Basque (45) as well, discussing dative intervention and emergence of the absolutive in this section, and interaction between embedded and matrix Agree in section 5.2. The account indicates parallelism between

ergative and accusative, both coming from a higher clause and blocked by a dative intervener, and absolutive and nominative, which then emerge.²³

We begin with our conclusions hitherto (i-iii), which give rise to the pattern of ergative or absolutive S with ergative agreement seen earlier, (48)a, and add (iv), the intervention effect of datives, (48)b. (v) is an independent aspect of Basque-type ergativity, where subjecthood is orthogonal to the ergative and absolutive case-agreement alignment of the subject (Laka 1993a, 2000, Bobaljik 1993, Rezac 2003, 2008b).

- (i) INF introduces v_{ABS} and *behar* introduces T_{ERG} , (48).
- (ii) Agree with v_{ABS} is responsible for absolutive case/agreement of S (vP in (48)a).
- (iii) Agree with T_{ERG} is responsible for ergative agreement with S, and if S raises to Spec,T, ergative case on S (TP in (48)a).
- (iv) In S + dative unaccusatives in INF + *behar*, (48)b, the dative intervenes and prevents Agree of T_{ERG} with S, but not of v_{ABS} with S.
- (v) S may raise to the Spec,T subjecthood/EPP position, (48)b, regardless of the Agree/Case locus to which it relates.

(48) *Derivations for INF_{unacc} + behar without and with dative intervener*

- a. $(S_{ERG}) T_{ERG} \text{ behar } [v_{ABS} \dots (S_{ABS}) \dots]$

- b. $(S_{ABS}) T_{ERG} \text{ behar } [DAT \dots v_{ABS} (t_{DAT1}) \dots (S_{ABS}) \dots (t_{DAT2})]$


²³ Icelandic oblique-PRO infinitives regularly allow nominative on their objects (Freidin and Sprouse 1991, Sigurðsson 1991). It is unlikely that the nominative in (47) is default or inherent (Frampton and Gutmann 1999: 3.3.1, Hiraiwa 2005: 71). Structural nominative/accusative DPs alternate in virtue of embedding under active vs. passive ECM and control the phi-agreement of participles between their in-situ position and their assigners. The nominative/accusative theme in (47) has these properties (Jónsson 1996: 150). In contrast, Icelandic *inherent* accusative on the subject of *vanta* 'lack' in (i) remains accusative in all contexts, (i-b), and usually does not agree with the participle, (i-d) (Andrews 1982, 2010, Freidin and Sprouse 1991).

(i) *Inherent ACC preserved under ECM*

- a. Mig vantar peninga.
 me-ACC lacks money-ACC
- b. Mig er talið vanta peninga.
 Me.ACC is believed to.lack money.
- c. Hann telur mig vanta peninga.
 He believes me.ACC to.lack money
- d. Þeir segja hana (vera) %talið/%talda vanta peninga.
 They say her.ACC to.be believed.DFLT/ACC.F.SG lack money.ACC
- ((a-c) Freidin and Sprouse 1991: 408, (d) Andrews 1982:469, 2010:1.3)

We need to address in more detail the blocking effect of datives on $T_{\text{ERG}}\text{-S}$ Agree, and the interaction of T_{ERG} and v_{ABS} Agree with S.

The blocking effect of the dative in (48)b on the ergativity of S can be viewed as its intervention in Agree between S and T_{ERG} , either by relativized minimality since they are not in the same minimal domain, or by phase opacity if 'high' datives create phases.²⁴ The literature on Basque datives establishes that within the vP, psych-experiencers are *high* datives above the unaccusative subject S at t_{DAT1} in (48)b, possessors as well but perhaps raise to t_{DAT1} from t_{DAT2} , while goals of motion are *low* datives below S at t_{DAT2} . This is based on c-command among the phrasal content of A-positions, (non)intervention for person Agree of v_{ABS} and S, (non)obligatoriness of dative agreement, and interaction with control and causativization (Albizu 1997a, 2011, Etxepare and Oyharçabal forthc a, b, Fernández and Ortiz de Urbina 2010, Fernández 2011, Rezac 2008b). However, even the low datives *can* agree and antecede agreement-sensitive anaphora, which is otherwise reserved to and expected of high datives (Rezac forthc, cf. Albizu 2001a).

We resolve this tension by taking dative agreement to reflect a clitic/ D° at DAT in (48)b doubling the vP-internal dative, along the lines of clitic-doubling in Romance. The doubling clitic/ D° at DAT is what blocks Agree with T_{ERG} . Low datives differ from high ones by the low position of their phrasal content below S, but are doubled by clitic/ D° at DAT when they agree. This conforms to the conclusion that Basque dative agreement reflects clitic/ D° -doubling rather than phi-Agree, unlike absolutive (number) agreement, according evidence from morphology, dative-absolutive interactions, and locality (Rezac 2006, 2008a, Preminger 2009, Arregi and Nevins 2008, 2011, Etxepare in prep.).²⁵

When DAT prevents S from Agree with T_{ERG} , S is absolutive for agreement and case, while otherwise it has only ergative agreement. We have argued in section 4.5 that unaccusative INF + *behar* (and *behar* + INF) has the Agree/Case licenser v_{ABS} , which is responsible for the absolutive case of S in-situ in INF + *behar*, beside ergative case when S raises to Spec, T_{ERG} . When the subject of INF cannot Agree with T_{ERG} at all because of DAT, the only convergent derivation is one where v_{ABS} Agrees with S, for otherwise S would fail the Case Filter. We discuss the interaction of v_{ABS} and T_{ERG} Agree in 5.2.²⁶

²⁴ See Sigurðsson and Holmberg (2008) for relativized minimality and Nomura (2005), Bobaljik (2008) for phases applied to the Icelandic type (47). Either phases or minimal domains are suited to explaining how Agree is blocked across a dative at the edge of an infinitive, (47) in Icelandic and INF + *behar* in Basque, but not when the probe, the dative, and a lower goal are part of the same minimal vP/TP, (46) in Icelandic (Sigurðsson and Holmberg 2008) and in Basque simple unaccusatives/transitives (Rezac 2008b; cf. for unaccusatives with T_{ERG} Albizu and Fernández 2002: 81-3), although there perhaps dative must displace to the probe and give rise to the Person Case Constraint (cf. Anagnostopoulou 2003).

²⁵ Some dialects, which require low datives in unaccusatives to agree in monopredicate structures, permit them not to in INF + *behar* (Albizu and Fernández 2002, Ortiz de Urbina 2003a: 3.5.5). The dative is then not doubled by DAT and does not block Agree in (48). This option might simply involve the use of a smaller INF, without the functional architecture that doubles datives by DAT.

²⁶ If T_{ERG} comes from *behar* but v_{ABS} from INF, we need to pool their phi-features into a single agreeing auxiliary 'across' *behar*, one of the 'semi-auxiliary' properties that distinguishes *behar* as modal 'must' of all kinds in contrast to the noun 'need' (section 4.5). Current work offers the options (i-iii):

- (i) Head movement of v from INF to T across *behar* through excorporation (Roberts 2010).
- (ii) Phi-features sharing across extended functional projections without movement (Zwart 1997: 6.2, Chomsky 2008: 143-4, 159 note 262).

Stepping back from our analysis and looking at the IEH, Basque (45) and Icelandic (48) show a parallel alternation of S between regular ergative/accusative and absolutive/nominative due to an intervening dative, without a difference in the thematic interpretation. Ergativity is independent of thematic relations. The blocking of ergativity in INF + *behar* by DAT at the edge of INF supports a high ergative locus, T_{ERG}.

4.7 Overview and extension: ergative on objects

In this section, we have analysed INF + *behar* structures, and found the following evidence for raising from INF to ergative T_{ERG} brought by *behar*:

- Reconstruction of ergative for thematic, idiomatic, and scopal interpretation.
- Ergative-absolutive case alternation according to high versus low subject position.
- Ergative-absolutive alternation due to dative intervention.

These arguments apply both to agreement and case. Ergative agreement behaves like nominative or accusative agreement English or Icelandic. Ergative case differs in requiring movement to Spec,T_{ERG}. We return to this and to the difference between ergative and accusative systems in our model of ergativity in section 5.

We end this section on an INF + *behar* construction in the Souletin dialect of Basque that appears to exhibit ergative on raised *objects*. It is introduced in (49), based on the study of Bedaxagar (2010) (cf. Ortiz de Urbina 2003b: 307f.). The thematic object of INF appears as the subject of INF + *behar*, ergative in both case and agreement. The subject of INF is silent. The construction is limited to 3rd person. Ergativity in Souletin is otherwise similar to that of other dialects (Coyos 1999).

(49) *Souletin Basque: object raising to ergative*

- a. Stop-ak errespetatü behar dizü
stop-d.sE respect must AUX.3sE.ALLOC
It is necessary to respect the stop sign.
- b. Stop-ek errespetatü behar dizie
stop -d.pE respect must AUX.3pE.ALLOC
Stop signs must be respected.
- c. *Ni-k errespetatü behar dizüt
I-E respect must AUX.1sE.ALLOC
I must be respected.
- d. Egi-ak erran behar ba-du... [Jean Etchepare, *Iturbidea*, 1957]
truth-d.sE say must if-AUX.3sE
If it is necessary to tell the truth...

(iii) In [behar INF], INF projects; *behar* is structurally comparable to a raising modal adverb (*necessarily*), or to an object complement (*INF have [as] need*, which may be its historical source (de Rijk 2008: 14.1, cf. section 5.3 and note 16), but determining the distribution of T_{ERG} in the manner of section 5.3.

Raising from object to ergative makes for as strong an argument against the IEH as could be desired. However, the construction remains to be fully investigated, and we limit ourselves to two pieces of evidence that raising is indeed involved.

First, the Basque construction contrasts thematically with English retroactive gerunds that it otherwise resembles, *The shirt needs [PRO_i washing t_i], in behar*.²⁷ In English the matrix subject is an argument of *need* and controls into the infinitive with internal passivization (Safir 1991). This creates the contrast in *The stop-signs need replacing/*respecting*, parallel to *The stop-signs need replacement/*respect*, because *need* imposes thematic restrictions beyond those of the infinitive in *It is necessary [PRO to respect/replace the stop-signs]*, *It is necessary [for the stop-signs_i to be respected t_i]*. In Souletin (49)b, *behar* is thematically inert, as expected of a raising verb.

Second, the Souletin but not the English construction is restricted to 3rd persons. This restriction is not found in control, but characterizes certain restructuring constructions that have been analysed as object-to-subject raising. It is illustrated for Czech (50). Dotlačil (2004) argues that (50) involves Agree of matrix T_{NOM} with the object of the infinitive because there is the subject is inaccessible to Agree. The person restriction may then be attributed to interference with person Agree in this structure, whether by the subject, a silent matrix antecedent of it, or the infinitival boundary (cf. Medová 2009: 9.3.3 on Czech, Rezac 2011a: 5.6.4 on Finnish, Chomsky 2000: 128 for Icelandic).²⁸

(50) *Czech: object-to-subject raising and person restriction*

- a. Takovéhle zákony_i/?lidi_i nejdou [respektovat t_i].
 such laws/?people.NOM not.go.3PL respect.INF
 It is not possible to respect such laws.
- b. *Vy_i nejdete [respektovat t_i].
 you.NOM not.go.2PL respect.INF
 It is not possible to respect you.

These properties of the Souletin construction indicate that it involves Agree of the ergative locus contributed by *behar* with the object of INF, and that it is available because the dialect has INF whose subject can be crossed by Agree. If this is right, there is no maintaining the IEH for Basque ergativity, since there is no thematic relationship that could be associated with the ergativity of both external and internal arguments.

5 Conclusion: The theory of ergativity

²⁷ Both Souletin and English are restricted to local direct objects that can promote in passivization (English) or detransitivization (Basque). This indicates that there is no A'-chain involved, unlike in *tough*-movement.

²⁸ We are grateful to J. Dotlačil for discussion, who discovered the person restriction in work leading to Dotlačil (2004). We use 'interference' broadly, encompassing both licensing by and intervention in Agree, as in accounts of person restrictions in Basque detransitivization impersonals (Albizu 2001b, cf. Ortiz de Urbina 2003c) and Romance *se* impersonals (Rezac 2011a, cf. D'Alessandro 2007, Mendikoetxea 2008, Medová 2009). It is possible that such a detransitivization impersonal occurs in the infinitive in Souletin.

5.1 Structural ergativity

We have investigated the Inherent Ergative Hypothesis (2) that ergativity depends on the thematically s-selectional or c-selectional relationships of its bearer.

(2) *Inherent Ergative Hypothesis* (IEH): The ergativity of an argument α obtains in virtue of the inherent relations of α , that is thematic or lexically idiosyncratic selection.

In Basque, the core differences between selectional and nonselectional relationships indicate that neither ergative case nor ergative agreement need selectional ones:

- (A) ECM: Ergative case/agreement disappear in nonfinite structures with reduced C/T but intact vP, so that otherwise ergative external arguments are absolutive under ECM.
- (B) Raising: Ergative case/agreement appears in INF + *behar* 'must' on the subject of the infinitive independently of its thematic properties: transitive and unaccusative subjects (and transitive objects).
- (C) Subjects of INF + *behar* alternate between ergative case upon raising and absolutive case in INF, with ergative agreement in both configurations.
- (D) Subjects of INF + *behar* alternate between ergative and absolutive case/agreement according to whether a dative intervenes between them and *behar*.

This list is not exhaustive. Similar evidence comes from absolutive-ergative alternations of unaccusative subjects under person restrictions in Rezac (2008b), and ergative-absolutive alternations of external arguments under reflexive and impersonal detransitivizations in Etxepare, Albizu and Rezac (in prep.), Albizu (2001a).

We have not discussed the nature of absolutive case and agreement, for it seems uncontroversial that they are independent of thematic relations. This is clear from the absolutivity of transitive subjects under ECM, ergative-absolutive alternations in raising in virtue of dative intervention, and raising to absolutive on the raising analysis of small clause complements with *izan*, *egon* 'be' and *iruditu* 'seem' (Stowell 1978, Couquaux 1981, Burzio 1986: 2.7; for Basque, Artiagoitia 2001ab, Zabala 2003).

The existence of structural ergative-absolutive systems alongside nominative-accusative ones forces us to give up the view all Agree/Case systems are underlyingly nominative-accusative, resumed in (i-iii) (Woolford 1997, 2006, Nash 1995 for (ii), Legate 2008 for (ii) + (iii)).

- (i) T_{NOM} and v_{ACC} are structural Agree/Case loci. If the external argument EA of v and object O do not bear inherent Case, we have the nominative-accusative pattern.
- (ii) In one type of the ergative-absolutive (=nominative) pattern, the EA of agentive v bears inherent ergative, and T_{NOM} relates to O, parallel to psych v with inherent dative EA and nominative O in Icelandic.
- (iii) In a second type of the ergative-absolutive (=accusative) pattern, the EA of agentive v bears inherent ergative, but v is v_{ACC} , so that it rather than T_{NOM} relates to O, parallel to psych v with dative EA and accusative O in Faroese.

We must recognize the existence of both ergative-absolutive and nominative-accusative alignments of structural Agree/Case systems (Murasugi 1992, Bobaljik 1993, Laka 1993a, 2000, Bittner and Hale 1996, Bobaljik and Branigan 2006). Basque does not appear unique (Bobaljik and Branigan 2006 for Chukchi, Holmberg and Odden for 2004 for Hawrami). However, the richness of the Basque evidence in the key domains of ECM and raising permits a more sustained argument than has so far been made.

In the remainder of this conclusion, we discuss two issues raised by structural ergativity: in 5.2, the nature of the ergative and absolutive Agree/Case relations, and in 5.3, the parametrization of Agree/Case systems to give ergative and accusative alignments and yet allow accusative and ergative subsystems within them.

The structural character of Basque ergativity does not belie the existence of inherent ergativity. Theoretically, systems (ii) and (iii) above are unobjectionable. Empirically, some ergative systems conform to their expectations, including association of ergativity with theta-roles (Massam 2006 on Nieuuan), absence of raising to ergative (Marantz 1991 generally), and perhaps ergative in reduced clauses in ECM-like contexts (Daniel, Maisak and Merdanova *forthc*). Yet these are arguments from negative evidence, and might not establish the inherent character of ergative systems like that of Hindi, where the ergative is not raised to, yet depends on Tense/Aspect and perhaps disappears in ECM (Davison 2004, 2008, Ura 2000, 2006). Other arguments in the literature are not decisive: we will see that structural ergative and accusative both can be sensitive to lexical properties (5.3) and that structural ergative can be morphologically and configurationally marked in ways that resembles inherent obliques/PPs (5.2), so these are not marks of inherent ergativity.

The origin of ergative systems suggests that a system might transition from inherent to structural ergativity, but also hints that inherent case is not its only source. Emergence of the ergative is well documented in Indo-Aryan (Masica 1991: 10.3, Butt 2006: 6.8), Indo-Iranian (Haig 2006), and Neo-Aramaic (Doron and Khan 2010). In Indo-Aryan, the source of present-day ergative systems is passive/resultative with nominative S and inherent oblique or PP agent/instrument. The later was reanalysed as subject, giving the type of ergativity found in Hindi: the perfect has overtly case-marked EA invisible to agreement and bare agreeing O and S, while the imperfect has bare agreeing EA. In related languages the EA transitions to a more structural case (Deo and Sharma 2004; Korn 2009). In Gujarati, the EA remains ergative in case and does not agree, but it interferes in person agreement of O like quirky dative subjects of Icelandic (Bhatt 2006: 801, Rezac 2008: 118f.; cf. Doron and Khan 2010 on Neo-Aramaic). In Nepali, the EA is also ergative in case but agrees as in Basque, leaving it ambiguous between an agreeing inherent Case and a structural Case DP. In Bengali, ergativity of the EA has disappeared. Yet not in all systems does ergativity come from inherent obliques/PPs. For Basque, current research proposes an animacy marker as source of the ergative case (Lakarra 2005: 443f., cf. Martínez 2009; cf. Georgian ergative from demonstrative, Kulikov 2009: 447).²⁹ If so, the Basque ergative would not have had to tread the path from inherent Case

²⁹ We are grateful to J. Manterola for bringing this work to our attention.

and need never have shown any trace of inherent behavior. As far as can be told, the system has been as it is since the first connected phrases in the ninth century.

5.2 The nature of ergative and absolutive case

The Basque ergative is significantly parallel to the Icelandic nominative. Both are structural Agree/Case relations, in the supra-vP T-system above a lower absolutive and accusative, available for raising-to-subject. However, the ergative also differs from the nominative, accusative and absolutive. The low subject of raising and ECM in Icelandic (3)-(5) is nominative or accusative in agreement and case alike whether it raises or remains low, as expected of Agree. In Basque INF + *behar* raising, the subject is ergative in agreement always, but ergative in case only if it raises to Spec,T_{ERG}, and otherwise absolutive in case despite ergative agreement. This is a new finding of our study, and we need to extend the theory of Agree/Merge or their realization to integrate it.

The basic structure of Basque ergativity is in (51)a (Bobaljik 1993, Laka 1993a, 2000, Rezac 2011a: 5.5). Ergativity depends on the supra-vP T-system while absolutivity is lower. We attribute them to T_{ERG} and v_{ABS}, as cover-terms for other possibilities such as Fin_{ERG} and Asp_{ABS}. The relative position of the ergative and absolutive loci corresponds to nominative and accusative ones in (51)b.

(51) *Clausal Agree/Case loci*

- a. T_{ERG} [EA v_{ABS} [... O/S ...]] (structural ergative system, Basque)
 b. T_{NOM} [EA v_{ACC} [... O/S ...]] (structural accusative system, Icelandic)

The special character of ergative case and the emergence of absolutive case are revealed in the INF + *behar* raising configurations (i-iii), illustrated in (52)c-(52)e, beside simple monopredicate constructions in (52)a-(52)b. Agreement but not case behaves as expected of Agree with T_{ERG} and v_{ABS}:

In INF + *behar*, the subject has:

- (i) Ergative agreement and case if it *both* Agrees with T_{ERG} *and* raises out of INF, (52)c.
 (ii) Ergative agreement but absolutive case if it Agrees with T_{ERG} but remains in *unaccusative* INF, (52)d.
 (iii) Absolutive agreement and case if it Agrees with v_{ABS} in unaccusative INF because Agree with T_{ERG} is blocked, whether it stays in INF or raises out of INF, (52)e.

(52) *Agree/Case configurations*

- a. Transitive: [EA T_{ERG=EA} [t_{EA} [v_{ABS=O} O_{ABS}]]]
 b. Unaccusative: [(S_{ABS}) T [v_{ABS=S} (S_{ABS})]]
 c. Raising-to-ERG, subject moves: [S_{ERG} T_{ERG=S} [INF [v t_S]]]
 d. Raising-to-ERG, subject in-situ: [T_{ERG=S} [INF [v S_{ABS}]]]
 e. Raising-to-ERG, intervention: [(S_{ABS}) T_{ERG} [INF D^o_{DAT} [v_{ABS=S} (S_{ABS})]]]
 (=x indicates x controls Agree, visible as agreement in finite clauses)

We will first set out the challenge to be met by the theory of ergative and absolutive case. Ergative case appears in scenario (i), when the subject of INF *both* Agrees with T_{ERG} (unlike in (iii)) and raises to Spec,T_{ERG} (unlike in (ii)). This suggests a marked status for the ergative with respect to absolutive, nominative, and accusative, which are assigned by Agree alone. We analyse this markedness through a contrast between ergative KPs, whose ergative K^o is licensed in the configuration (53)a, and non-ergative DPs, whose case reflects features assigned by Agree, (53)b (cf. Bittner and Hale 1996). The ergative's markedness is not simply due to its use of the overt suffix *-k* against the absolutive's \emptyset , since in Icelandic nominative and accusative cases are both overt suffixes yet available to goals in-situ or raised ((3)-(5)). We need to understand how the ergative K in (53)a=(i) is licensed by the spec-head configuration or movement to it, and how an ergatively-agreeing DP surfaces as absolutive otherwise in (ii).³⁰

(53) Structural Case

- a. $[[K^o=ERG DP_i] \text{Spec}, T^o_{ERG=i}]$ b. DP_{NOM/ACC/ABS} by Agree

Absolutive case uses default morphology, insofar as it is \emptyset and borne by DPs in Schütze's (2001) Default Case contexts, including vocatives, hanging topics, predicate nominals, and CPs in Caseless positions (Albizu 2007b). However, absolutives in A-positions need to Agree to pass the Case Filter. In finite clauses where agreement is overt, they must control agreement, even where that leads to ungrammaticality due to agreement restrictions, in contrast to datives whose agreement may be suspended to avoid them (Rezac 2009). When Agree is unavailable, absolutives are ruled out. This is shown in (54): the experiencer takes up Agree with v_{ABS} of the unaccusative, leaving the proposition to be expressed by a Caseless CP or an oblique DP, but not by an absolutive DP despite its \emptyset case marking.³¹ In INF + *behar* (ii) and (iii), the absolutive is accordingly limited to unaccusative INFs, which have v_{ABS} to give absolutive by Agree. However, we need to understand how absolutive case appears in (ii) on DPs with ergative and not absolutive agreement, and is pre-empted by raising to ergative (i).³²

(54) *Basque: Case Filter in DP vs. CP*

- a. Beldur naiz {etorri-ko dela / *etor-tze-a / *etorrera / *hori}.
 afraid AUX.1sA come.FUT AUX.1sA-that com-ing-d[.sA] arrival.d.[sA] that.[A]
 I am afraid that she will come / *(of) her coming / *(of) her arrival / *(of) that.
- b. Damu naiz {egin izan-a-z/[%]-a / egindako-ez/*-ak}.
 regret AUX.1sA done had-d.s-with/[%]-d action-d.p.with/*d.pA
 I am sorry that she did this / *(for) her having done this / *(for) her actions.

³⁰ The ergative as marked case receives some support from the availability of finite CPs only in positions where a DP could be the default absolutive or not Case-licensed (Artiagoitia 2003: 4.10.1.1.7, 4.10.1.2.1.1), but the phenomenon is not only about case and remains to be fully understood (Albizu 2008).

³¹ See Pesetsky (1982), and for Case Filter effects recently, Bošković (1997, 2002), Rothstein (1992), Boeckx and Hornstein (2005), Rezac (2010), Baker and Vinokurova (2010); cf. Duguine (2010). Basque nominalizations like *izan-a* in (54) do not need Case for some speakers (see also de Rijk 2008: 827).

³² The same is true in Icelandic (47) for T_{NOM} in INF if and only if v_{ACC} is blocked.

There are two ways to approach these challenges. One is to modify the theory of syntactic Agree/Merge relations of Chomsky (2000 et seq.) to create ergative KPs in (53)a=(i) and let absolutive DPs emerge in (ii). This approach is supported insofar as the configurations to which we will need to refer are those of syntax, specifically movement for ergative case and Agree for absolutive case, and the modifications needed have independent support. The other approach is to retain the theory of Agree/Merge unaltered and model ergative-absolutive distribution through the realization of DPs Agreeing with T_{ERG} in a sufficiently powerful post-syntactic morphology (cf. Marantz 1991). This approach needs to duplicate syntactic configurations in morphology but refrains from positing Agree invisible on the surface. Both approaches are independently being under discussion in current research. They make very different predictions about the nature and mechanisms of the ergative-absolutive distinction, which future work can use to investigate the scope of syntax and morphology and their interaction.

The syntactic approach determines the case of DPs by the nature of the Agreeing head (Chomsky 2000, Pesetsky and Torrego 2007) and licenses K° by another syntactic dependency (Bittner and Hale 1996). According to (53)a=(i), an ergative KP is licensed only if a DP is in $\text{Spec},T_{\text{ERG}}$ and if T_{ERG} Agrees it. Together, these two conditions restate *movement* of DP to T_{ERG} , if movement is Agree with T_{ERG} followed by Merge in $\text{Spec},T_{\text{ERG}}$ (Chomsky 2000). This indicates that re-Merge in $\text{Spec},T_{\text{ERG}}$ introduces or licenses K° , so that $\text{Merge}(\text{DP}, [T_{\text{ERG}}, \text{VP}])$ yields $[[K_{\text{ERG}} \text{DP}] [T_{\text{ERG}} \text{VP}]]$. More generally, Merge of α to a probe/selector β adds structure to α determined by β , in contrast to Agree that modifies the features of α and β only. We do not develop this further, but direct the reader to literature that analyses other phenomena with this profile, exploring either similar proposals or their alternatives. Particularly relevant is raising to the object of a preposition (McCloskey 1984, Runner 2006: 4.4, Rezac 2011a: 215, Pesetsky 2010; Kayne 2004) and other functional heads (Mahajan 1996, Rezac 2003; Sportiche 2005).

Non-ergative DPs should reflect features of the head that they Agree with, including v_{ABS} for absolutive. This is clear in (iii) where Agree with v_{ABS} is visible in absolutive agreement. In (ii) however, S in INF has absolutive case yet controls only ergative agreement. Nevertheless, the case comes from v_{ABS} , since it is only licensed in unaccusative INFs, those whose subject independently gets absolutive from v_{ABS} . We may assimilate (ii) to Agree with v_{ABS} if we permit it to be followed by Agree with T_{ERG} and explain the absence of absolutive agreement. In simple constructions, DPs exhibit only a single (complete) Agree, barring unaccusative S from controlling both ergative and absolutive agreement in Basque or having accusative case yet controlling nominative agreement in Icelandic. However, multiple Agree by matrix T_{ERG} and embedded v_{ABS} clearly occurs in CP + 'seem' cross-clausal agreement and raising like (43), repeated here:

(43) *Agree with a case-bearing, agreeing goal*

(b) [**Kontu asko**(*k) hobetzen ari **dir**-ela] ematen **dute**.
 matter many.A improving PROG AUX.3pA-that seeming AUX.3pE
 Many matters seem like they are improving. (RE)

(cf. copy-raising **Kontu-ek**_i 'matters-d.pE' [_i hobetzen ari **dir**-ela] ematen **dute**.)

The literature on these structures makes several proposals that allow multiple Agree here and not in simple structures, suitable for us: an extra feature on the embedded DP (Branigan and MacKenzie 2001, Bruening 2001: 5.5.5; cf. Carstens 2003); matrix Agree through the Agree-valued features of the embedded CP/INF (Rezac 2004: 3.6, Etxepare 2006, Preminger 2009); Agree only as needed for Case-licensing of DPs and transparent CPs/INFs (Rezac 2011a: 223 note 32). Unlike (43), (ii) has only a single agreement complex and shows only Agree with T_{ERG} . There is cross-linguistic evidence that multiple Agree with a single goal is realized only once per agreement complex (Carstens 2003: 407f.) and it has been proposed for Basque for a situation similar to (ii) (Rezac 2008b: 85). Thus the theoretical postulates needed for (ii) are independently grounded.

On the alternative, morphological approach to ergative and absolutive case marking, we posit that in the configuration (53)a a DP is spelled out as an ergative KP, while a DP c-commanded by v_{ABS} is spelled out as an absolutive DP. It avoids enriching Merge to create KPs in (i) and positing invisible agreement with v_{ABS} in (ii). However, duplicates the conditions of Agree+Merge to T_{ERG} in (i) and Agree with v_{ABS} in (ii), whereas arguments for the morphological determination of case and/or agreement start from their failure to correspond to such syntactic configurations (e.g. Marantz 2000 for Icelandic nominative case and agreement, Deal 2010 for Nez Perce ergative case but not agreement). We need also to assume that INF with an unaccusative verb always has v_{ABS} , to allow absolutive agreement in (iii) and absolutive case in (ii) and (iii), but that v_{ABS} need not Agree, to give a convergent derivation in (ii) where T_{ERG} needs to Agree.

The morphological component needed for this approach is not that needed for familiar contextual allomorphy or morphophonology. The context to which case realization must refer is not local, since ergatives can be A'-moved away from the Spec, T_{ERG} where they are licensed, nor overt, since ergative case occurs in (53)a even when agreement with T_{ERG} is systematically not spelled out in nonfinite clauses. We need morphology to spell out a DP as $[K^{\circ} \text{DP}]$ if an occurrence of it is in Spec, T_{ERG} of a T_{ERG} Agreeing with DP, and as a bare DP if an occurrence of it is c-commanded by v_{ABS} . It remains a question under discussion whether spell-out accesses and affects sufficiently syntax-like structures and primitives to achieve this outcome (Bonet 1991, Marantz 1991, Nunes 1999, Bobaljik and Branigan 2006, Rezac 2011a: chapter 2).

The choice between syntactic and morphological approaches has consequences both for the nature of syntactic dependencies or operations and for the nature of morphology. The two approaches also make different predictions by which they may ultimately be distinguished. A syntactic reification of the ergative-absolutive distinction attributes a different syntax to ergatives as KPs than to absolutives as DPs. This may or may not be desirable for Basque, where ergative and absolutive generally have the same properties for considerations like agreement and A'-extraction, but where there are hints of potential differences (cf. Etxepare and Etxeberria 2010). Other apparently similar structural ergatives do differ syntactically from absolutives (Rezac 2011a: chapter 3).

5.3 Parametrizing ergativity

The last issue that we turn to is parametrization. Our conclusion shows that it must be possible to parameterize structural Agree/Case systems as accusative EA/S-O and ergative EA-O/S in alignment. At the same time, the raising-to-ergative *behar* and *irudi*, *eman* 'seem' of (43) are an island of nominative alignment in an ergative system, grouping the highest argument of INF, EA and S, as ergative raisees; this is also so for simple ergative-subject unaccusatives if they exist (section 2). Conversely, in accusative systems there exist islands of absolutive alignment, where S is a structural accusative like O; examples include Russian "adversity impersonals" anticausatives (Lavine and Freidin 2002, Szucsich 2007) and Icelandic "fate unaccusatives" anticausatives (Schäfer 2008: 7.4, Sigurðsson forthc a, b). In both islands of exceptionality lexical arbitrariness plays a role: unaccusatives with ergative subjects in Basque and accusative subjects in Russian and Icelandic are partly lexically idiosyncratic exceptions to the prevalent absolutive and nominative-subject unaccusatives of these languages. Here we consider the implications of this for the parametrization of structural Agree/Case systems.

Ergative and accusative subject unaccusatives go counter Burzio's Generalization and its mirror image in ergative system:

- (55) Dependent Case generalization: accusative and ergative only occur in transitives, as if dependent on nominative and absolutive (Levin and Massam 1984, Marantz 1991, Laka 1993a, 2000, Bittner and Hale 1996, Rezac 2011a).

In light of exceptions, we might choose not to call the Agree/Case alignment of Basque "ergative" and of Icelandic or Russian "accusative". That leaves intact the task at hand: to parametrize Agree/Case relations so that in Basque S typically gets the low v_{ABS} Agree/Case relation (= O), but for some lexically specified verbs like *behar*, the high T_{ERG} one (= EA), whereas in Icelandic it is inverse. The role of lexical arbitrariness in ergativity has been a motivation for inherent theories of it (Oyharçabal 1992, Mahajan forth), but we now see that it is a property of structural ergative and accusative. We need tools to distribute Agree/Case loci according to arbitrary choices of verb, or c-selection.

The direct way to do so is by c-selection between Agree/Case loci and lexical items. Albizu and Fernández (2006) propose that T_{ERG} is limited to transitives by c-selecting for agentive v. If we allow c-selection between T_{ERG} and *behar* (v+)V, we create ergative-subject unaccusatives (cf. Preminger forthc on Basque, and Sigurðsson forthc a, b on Icelandic). However, this constitutes a means for a lexical item to arbitrarily manipulate the functional architecture in which it is inserted, a move that may not be justified.

There is an indirect way which is independently justified, and which has been used to parametrize Agree/Case alignment: through c-selection of silent D(P)s in approaches that start from the Dependent Case generalization. Let us take the system of Laka (2000). Laka posits two kinds of probes, +active ones that must Agree with a goal, and -active ones that may but need not. A goal can Agree once only. T and v are always Agree/Case loci, but in an ergative system v has the +active probe while in an accusative system T does. In unaccusatives the sole S goal must Agree with the +active probe to satisfy its

need to Agree: v_{ABS} and T_{NOM} . In transitives, both probes must Agree to satisfy the Case requirements of EA and O, each with the closest goal, $T_{ERG/NOM}$ -EA and $v_{ABS/ACC}$ -O. In this manner the existence of the -active/marked ergative and accusative relations depends on the establishment of the +active/unmarked absolutive and nominative ones, and thus indirectly on the DPs or *Case Competitors* that participate in them.³³

In this system, the absence of ergative-subject unaccusatives derives from the need of +active v to find a goal (and similarly the absence of accusative-subject unaccusatives from the need of +active T to do so). To allow them, a silent Case Competitor may be posited to absorb the +active probe of v_{ABS} , leaving only the -active probe of T_{ERG} available. Laka (1993a, 2000) proposes this for ergative-subject unergatives in Basque, analysing them as transitives with silent object that does not incorporate and remains visible to v_{ABS} . Bittner and Hale (1996: 35ff.) push this idea by positing dummy or expletive Case Competitors that serve merely to parametrize alignment systems. The needed entities exist independently and can be selected by lexically arbitrary verbs: D(P) idiom chunks that participate in phrase structure, carry phi-features, and get case, but are invisible to all other syntactico-semantic relations (English DP *kick the bucket*, English D° *take it away*, French D° /clitic *l'emporter* 'lit. it/him.ACC take.away = succeed, win'). Research on accusative-subject unaccusatives reveals that some are due to silent Case Competitors with the relatively inert but still detectable content of quasi-expletives. The residue not detectable by syntactic tests fits the profile of pure expletives.³⁴

For Basque ergative-subject unaccusatives, no synchronic syntactic evidence of Case Competitors is known. Diachronically, raising-to-ergative structures appear to originate in transitives, including 'seem' of (43), *irudi* (< 'have (as) image') and *eman* (< 'give', cf. 'give out'). The focus of our study, INF + *behar*, belongs to a class of VPs consisting of N/A + 'have/be' that have been reanalysed as compound verbs thanks to the identity of 'be/have' with the -ERG/+ERG auxiliaries (De Rijk 2008: chapter 14, cf. Hualde, Oyharçabal and Ortiz de Urbina 2003: 3.5.4). Closely similar is to INF + *behar* and indicative of its origin is the control structure [DP (INF / DP-GEN) *behar* 'need' D°] + *izan* 'have', parallel to English 'have (a) need (to V / of DP)' (section 4.3). In our INF + *behar*, *behar* lacks nominal properties and has some verbal ones: it lacks the determiner that nominal arguments must bear, a DP complement gets absolutive across it, its order

³³ We adapt Laka's system to Agree and T , v . The \pm active probe dichotomy may be reconstrued without diacritics by understanding a lexical item like T with a -active probe to reflect the existence of two different T s in the lexicon, with and without a probe, while a +active T only exists with a probe (Rezac 2011a: 254). Other ways to work out the Dependent Case generalization through Case Competitors introduce marked Agree/Case relationships by referring to them directly (Bittner and Hale 1996; Marantz 1991) or to their Case needs (Rezac 2011a: 5.5).

³⁴ For detectable quasi-expletive competitors in accusative-subject unaccusatives, see Szucsich (2007) on Russian "adversity impersonal" anticausatives and Haider (2001), Wurmbrand (2006), Schafer (2008: 7.4) on Icelandic "fate unaccusative" anticausatives; for passives with a silent agent as competitor, see Maling and Sigurjónsdóttir (2002) on one variety Icelandic "new" passive versus Jónsson (2009) on another where it is undetectable, similarly Lavine (2000), Maling and Sigurjónsdóttir (2002), and Szucsich (2007) on Polish versus Ukrainian *no/to* passives, and Baker and Vinokurova (2010) on Sakha. For qualifications and skepticism regarding Laka's analysis of ergative-subject ergatives with argumental objects, see Etxepare (2003a), Albizu and Fernández (2006), Laka (2006b), Preminger (forthc).

with respect to the auxiliary is that of verbs, and it can take the verbal future suffix *-ko* although not other verbal suffixes.³⁵

With simple ergative and absolutive-subject unaccusatives, it suffices to recapitulate their diachronic origin in transitives by positing an expletive Case Competitor to absorb v_{ABS}/T_{NOM} and leave T_{ERG}/v_{ABS} to Agree with their argument. For raising-to-ergative INF + *behar* 'must' and CP + *irudi, eman* 'seem', more needs to be said. They introduce T_{ERG} that Agrees with the subject of their INF or finite CP complement. If these raising verbs have a full clausal architecture, we may posit an expletive Case Competitor to explain why the matrix v_{ABS} rather than T_{ERG} Agrees, but we may also suppose them to have only the upper portion of clausal architecture with T_{ERG} but not v_{ABS} (cf. Cinque 2004). The conundrum of raising-to-ergative is that their clausal complement contains v_{ABS} that Agrees with their subject, as discussed in 5.2, most clearly so in (43). Laka's treatment of the Dependent Case generalization is predicated on the hypothesis that a DP may (fully) Agree with only one Agree/Case locus. As we have seen in section 5.2 finite CPs and INFs transparent to cross-clausal agreement are exceptions to this, and the theoretical accounts cited there exceptionally render their subject available for multiple Agree, in a way compatible with Laka's approach.

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³⁵ Although this suffix is diachronically the locative-genitive case *-ko* of nouns, stem allomorphy distinguishes them: future of 'must' *behar-ko*, locative-genitive of 'need' *beharr-e-ko*.

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