

## The structural ergative of Basque and the theory of Case\*

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**Abstract:** We investigate the nature of morphological ergativity through the ergative/split-S system of Basque. We show that in Basque ergative case and agreement reflect structural rather than inherent Case: Agree/Move rather than selection. Evidence comes from the core distinctions between these dependency types, including ergative-absolutive alternations due to absolutive Exceptional Case Marking of external arguments and raising-to-ergative of internal arguments. In consequence, structural Agree/Case systems cannot be reduced to a nominative-accusative basis with an inherent ergative, as has been proposed. Our investigation sheds light on the nature of structural ergativity in Basque. First, ergativity like nominativity comes from the T-system, whereas absolutivity and accusativity are in the v-system. Second, ergative agreement can occur under unbounded c-command through Agree, like nominative, accusative, and absolutive case and agreement, but ergative case requires movement to Spec,T, bearing out the ergative as a 'marked' structural Case. Third, structural Agree/Case systems are parametrizable to give both ergative and accusative alignments and islands of exceptionality within each. We develop a theoretical account of these results in the Agree framework of the Principles-and-Parameters approach, building on previous theories of structural ergativity.

### 1 Introduction

We investigate the nature of morphological ergativity through Basque. We show that Basque ergative case and agreement reflect structural rather than inherent Case, leading to ergativity or absolutivity independent of argumenthood, including absolutive external arguments through Exceptional Case Marking and ergative internal arguments through raising. Basque ergative and absolutive thus both prove to behave like the structural nominative and accusative of Icelandic and unlike the inherent dative of its psych-experiencers. This result has significant repercussions for Case theory: the structural Agree/Case system cannot be reduced to a uniform nominative-accusative alignment plus inherent Case (Woolford 1997), and must provide for both ergative and accusative alignments (Levin and Massam 1985, Murasugi 1992, Bittner and Hale 1996b, Bobaljik 1993, Laka 2000).

We also reach a better understanding of the structural ergativity of Basque. First, the source of ergativity lies in the T(ense)-system above the vP, like that of nominativity,

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whereas absolutivity and accusativity are lower (Levin and Massam 1985, Bobaljik 1993, Laka 1993a, 2000). Second, ergative *agreement* can occur at a phrase-structural distance through Agree, like nominative, accusative, absolutive 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 (Bittner and Hale 1996a). Third, structural Agree/Case systems present not only ergative and accusative alignments, but also finely parametrizable exceptions, calling for suitable tools. We develop proposals to meet these requirements in the Agree framework of the Principles-and-Parameters approach (Chomsky 2000 et seq.).

In the remainder of this introduction, we set out the context and importance of our principal result: Basque ergativity reflects structural rather than inherent Agree/Case relations. In accusative alignment (1)a, the case-marking and/or agreement of the subjects of transitives (A) and intransitives (S), *nominative*, aligns against the object of transitives, *accusative*. In ergative alignment (1)b, S and O align as *absolutive* against A as *ergative*. Various intermediate systems exist, notably for us a *split-S* (or *active*) system where the subject of certain intransitives patterns with A, particularly agentive unergatives, while that of others with O. These alignments of case and agreement are all *morphological*, and they have been the focus of work on the Case-theoretic basis of ergativity. They are distinct from *syntactic* alignments for properties such as causativization, extraction, and subjecthood, where ergative A-O/S alignment ranges from common even in otherwise accusative languages (causativization) to rare or nonexistent (subjecthood) (Dixon 1994, Bittner and Hale 1996b, Johns 2000, Aldridge 2004, Legate 2008, 2012).

(1) *Alignments*: a. Accusative:  $\boxed{A} S_{\text{NOM}} O_{\text{ACC}}$  b. Ergative:  $A_{\text{ERG}} \boxed{S} O_{\text{ABS}}$

Much work analyses all four case/agreement relations in (1) as reflexes of structural Case (e.g. Levin and Massam 1985, Murasugi 1992, Bobaljik 1993, Laka 1993a, 2000, Bittner and Hale 1996b, Bobaljik and Branigan 2006). Other work argues persuasively that ergative case and agreement sometimes reflect inherent Case (e.g. Johns 1992, Mohanan 1994, Woolford 1997, Anand and Nevins 2006, Massam 2006, Wiltschko 2008). A stronger position is that it is always inherent, (2):

(2) *Inherent Ergative Hypothesis* (IEH): Ergative case/agreement *always* reflects inherent Case: it depends on the relationship(s) between an argument and its predicate.<sup>1</sup>

The IEH has been proposed for conceptual and empirical reasons alike. Conceptually, it avoids complicating Case Theory with principles and parameters that would extend it beyond accusative alignment, and thus upholds as universal some version of Burzio's Generalization whereby structural O-Case depends on A or A-Case (Woolford 1997: 181-2, 198, 205-7, 222-3). On Woolford's (1997, 2006) analysis, ergativity is always associated with the external argument theta-role, that is s-selection between the external

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<sup>1</sup> By predicate we mean lexical predicate which takes its argument as part of its lexical meaning, including V, Appl,  $v_{A(\text{gent})}$ , in contrast to derived predicates formed in syntax by movement (Heim and Kratzer 1998).

argument A and the predicate  $v_A$  that interprets it, while other proposals also permit c-selection to play a role (between V and Spec,V, Oyharçabal 1992, Davison 2006, or between  $v_A+V$  and Spec,v, Mahajan 2012). On both views, ergativity depends on argument selection, and so permits construing an ergative system as an accusative one with inherent Case on the external argument, parallel to psych-verbs with inherent dative experiencers and nominative objects in Icelandic or accusative ones in Faroese. There is no need to add mechanisms to encompass ergative alignment, such as obligatorily versus optionally checked features (Bobaljik 1993, Laka 2000), or Case Competition with a covert D (Bittner and Hale 1996b). Empirically, the IEH derives a common association of ergativity and argumenthood: it attaches to theta-roles (Massam 2006), it is not conferred or removed in derived positions, as in raising (Marantz 2000, Woolford 2006, Legate 2008: 58, 90, 2012: 182-7), and it is not affected by properties of the non-thematic C/T system like finiteness, which influence rather the distribution of absolutive (Legate 2006).

By these same criteria, the Basque ergative proves structural: case and agreement show ergative or split-S alignment, grouping A against O and S with dialectal variation on unergatives, but the ergative is not associated with argumenthood: it disappears in ECM, it is conferred by raising of subject and object, and it depends on properties of the T- rather than the v-system. This result does not belie the existence of inherent ergativity with its empirical correlates, but it does require that the theory of structural Agree/Case system provide devices to yield ergative alignment. Ergative alignment is thus a heterogeneous phenomenon that encompasses both structural and inherent sources (Johns 2000 and Johns, Massam and Ndayiragije 2006, with literature, and our sec. 5).

The question of the Case basis of ergativity is articulated within a specific understanding of the notions of *structural* and *inherent* Case: inherent but not structural Case is associated with argument-predicate selection, for instance agent to agentive v. The difference between the two Case mechanisms may be illustrated through Icelandic (3)-(5) (Andrews 1982, 1990, Freidin and Sprouse 1991, Sigurðsson 1991, 2008, Jónsson 1996, Thráinsson 2007). In (3), the internal argument of *kaupa* 'buy' does not have inherent Case, and consequently its case and agreement do not depend on its selectional relationships, but rather on its relationships to Agree/Case loci, which may thus belong to a clause in which it is not selected. Under an active ECM verb (3)a-b, it is accusative due to upstairs  $v/V_{ACC}$ , while under a passive one (3)c-d, it is nominative due to upstairs  $T_{NOM}$ , with intervening participles agreeing in phi-features. The elements involved in these relationships may be separated by indefinite phrase-structural distance and may but need not be brought together by movement.<sup>2</sup>

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

- a. Hún taldi hafa verið keypta einhverja báta.  
 she believed.3s to.have been bought.pA several boats.A
- b. Hún taldi einhverja báta hafa verið keypta t.

<sup>2</sup> Abbreviations in glosses: 1/2/3 person, s/p number, E ergative, A absolutive but in Icelandic accusative, D dative, N nominative, d the definite article of Basque, ALLOC allocutive form, HYP hypothetical, PRES present, DFLT default. Examples: 2pE = 2<sup>nd</sup> person plural ergative, d.pA definite article fused with plural absolutive, sE singular ergative. PA, RE indicate judgments of P. Albizu and R. Etxepare when different.

- she believed.3s several boats.A to.have been bought.pA
- c. Það voru taldir hafa verið keyptir einhverjir bátar.  
 there were.3p believed.pN to.have been bought.pN several boats.N
- d. **Einhverjir bátar voru taldir** hafa verið keyptir *t*.  
 several boats.N were.3p believed.pN to.have been bought.pN  
 (Icelandic, a-c Sigurðsson 1991: 355f.)

By contrast, in (4) the internal argument has an inherent dative by virtue of being the argument of *bjarga* 'rescue', which takes dative direct objects. Inherent case can only be given to arguments, so there is no ECM analogue of such dative. The dative given by *bjarga* is not affected by embedding under active versus passive structures and intervening participles do not agree, whether the argument raises or stays in-situ.

- (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.D
- b. Hún taldi einhverjum bátum hafa verið bjargað *t*.  
 she believed several boats.D to.have been rescued.DFLT
- c. Það var talið [hafa verið bjargað einhverjum bátum].  
 there was.3s believed.DFLT to.have been rescued.DFLT several boats.D
- d. **Einhverjum bátum** var talið hafa verið bjargað *t*.  
 several boats.D was.3s believed.DFLT to.have been bought.DFLT  
 (Icelandic, a-c Sigurðsson 1991: 355f.)

The same is true in (5) for the dative experiencer of psych-verbs.

- (5) *Icelandic: preservation of inherent external dative under ECM*
- a. Hann telur barninu (í barnaskap sínum) hafa batnað veikin.  
 he believes the.child.D in foolishness his to.have recovered disease.the.N  
 He believes (in his foolishness) that the child has recovered from the disease.
- b. **Barninu** er talið hafa batnað veikin.  
 the.child.D is believed to.have recovered disease.the.N  
 The child is believed to have recovered from the disease.  
 (Andrews 1982:464)

This structural-inherent distinction has received different theoretical formulations. Chomsky (1986, 1995, 2000, 2004) proposes that it reflects different types of dependencies satisfying the Case-licensing requirement of DPs. Agree underlies structural Case, relating a DP to a functional head (probe) over a phrase-structurally unbounded distance, with or without internal Merge to give movement. Select underlies inherent Case, introducing a DP argument through external Merge to its predicate (selector). Both may give rise to agreement and case morphology.<sup>3</sup> Other proposals partly

<sup>3</sup> See for inherent versus structural Case, Chomsky (1986: 193, 1995: 114, 386 note 55, 2000: 143 note 31);

or wholly assimilate the two types of Case (Starke 2001, Collins 2002, Adger 2003, Pesetsky and Torrego 2006, Müller 2010). Inherent and structural Case, in particular, have both been construed as Agree(+Merge), and their differences derived from the association of only the former with thematic relations (Boeckx, Hornstein and Nunes 2010; cf. Svenonius *forthc*, Caha 2009, Kayne 2004). Our arguments for the structural character of Basque ergativity build on differences such as those in (3)-(5) that any theory must capture. Our discussion and analysis are formulated in the terms of Chomsky (2000 *et seq.*), distinguishing Agree from selectional dependencies.

We begin by setting out the system of case and agreement in Basque in section 2. Section 3 argues for the structural character of Basque ergativity from ECM-by-absolutive structures, where external arguments lose ergativity due to a defective T-system and gain absolutivity through Exceptional Case Marking. Section 4 argues for structural ergativity from raising-to-ergative, where internal arguments gain ergativity via Agree with and Move to T, alternating with absolutivity if these relations are blocked. In section 5, we develop a model of Basque ergativity in the Agree framework. Section 6 concludes on a discussion of structural versus inherent ergativity in ergative alignment.

## 2 The ergative system of Basque

Basque ergativity is morphological rather than syntactic. Syntactically, Basque is accusative to a degree comparable to French or Spanish. A is higher than O for c-command diagnostics like quantifier-variable and reflexive binding, and A groups with S for subjecthood diagnostics like control (Ortiz de Urbina 1989, Oyharçabal 1992, 2000). The ergativity of Basque lies in its case and agreement system. It has been given both structural Case analyses (Ortiz de Urbina 1989, Laka 1993a, 2000, 2006a, Artiagoitia 2001ab, Albizu and Fernández 2006) and inherent Case ones (Oyharçabal 1992, Laka 2006b). We will show that ergative case and agreement both reflect structural relations.

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

### (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.

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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).

The agreement of finite clauses shows a matching alignment. It is illustrated in (7). The agreement cross-referencing the ergative 1SG is the suffix *-t*, while that of the absolutive 1SG is the prefix *n(a)-*. Tense and agreement are typically hosted on auxiliary roots; in (7),  $\sqrt{u}$  appears when there is ergative agreement,  $\sqrt{iz}$  otherwise. Agreement thus indicates person, number, and case by the place and form of affixes and by the form of the root. We gloss this in the abbreviated manner shown in brackets in (7). There is also agreement with datives, using partly distinct affixes and roots (see Laka 1993b, Rebuschi 1983, Albizu 2002, Hualde, Oyharçabal and Ortiz de Urbina 2003 for overviews).<sup>4</sup>

(7) *Basque: case and agreement morphology*

- a. Ni-k asko ikusi d-it-u-t  
 I-E many.A seen X-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.

Among intransitives, unaccusative subjects categorically align with transitive objects.<sup>5</sup> The subjects of unergatives like *borrokatu* 'fight' show considerable variation (Oyharçabal 1992, 1999, Etxepare 2003a), tending to absolutive in the east and to ergative in the west (Aldai 2009), that is ergative and split-S alignment respectively (Dixon 1994), while subjects of unergative impersonal and reflexive detransitivizations are always absolutive (Albizu 2001b, Etxepare and Uribe-Etxebarria 2012: 5.2). One approach treats ergative-subject unergatives as transitives through a covert absolutive object (Laka 1993a, 2000, but see Preminger 2012). Both alignments are relevant to the Case basis of ergativity: ergative alignment is the inverse of accusative alignment, while split-S alignment exhibits the association of ergativity and external argumenthood

<sup>4</sup> Root allomorphy is helpful for 3SG.ERG/ABS, which lacks an overt affix: *du* glossed AUX.3sE in (6)a is *d-u* X-AUX(+ERG); *da* glossed AUX.3sA (6)a is *d-a* X-AUX(-ERG). Only 3SG.ABS agreement is potentially analysable as absence of agreement; we gloss it as 3sA only when there is a clear 3SG.ABS controller, and not, therefore, with ergative-subject unergative and raising verbs. 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, Fernández 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.

<sup>5</sup> Apparent ergative-subject unaccusatives like *iraun* 'last', *irakin* 'boil' seem to be unergative: they are so diagnosed by impossibility of partitive assignment which is restricted to internal arguments (cf. Arteatz 2007: 35 note 7); by absence of low-position readings likewise so restricted (see discussion of ex. (33)); and perhaps by causativization (M. Baker, p.c.), since like transitives/unergatives but unlike unaccusatives they can have inanimate dative causees (though other factors need controlling, Ortiz de Urbina 2003a: 4.8.2.1.2). The status of a couple of verbs like ergative-subject *urten* 'go out' in Bizkaian Basque beside absolutive-subject *irten* elsewhere remains to be investigated (Albizu and Fernández 2006, Aldai 2009). These same tests also indicate that absolutive-subject unergatives are truly unergative (see citations in text).

expected on inherent-Case approaches to ergativity. In Basque, the ergative proves structural in both systems: the ECM pattern in section 3 obtains in both, and while subject raising-to-ergative in section 4 has been investigated only for split-S dialects, object raising-to-ergative discussed in 4.3 comes from the most ergatively aligned dialect.<sup>6</sup>

### 3 Exceptional Case Marking in perception complements

#### 3.1 Introduction

Our first argument for the structural character of Basque ergativity comes from its absence on transitive subjects in the gerund complements of perception verbs, where they are absolutive. Building on Arteatz (2007), we show that these complements project the external argument in a thematically complete vP, but have a defective T-system. This defective T-system lacks the source of ergativity, leaving the transitive subject to become absolutive through Exceptional Case Marking (ECM) by the perception verb, just as in English a defective T-system leaves the subject to become accusative under ECM. In both languages, a sufficiently rich T-system is necessary for Case assignment. The result in Basque is an ergative-absolutive alternation of transitive subjects according to the richness of T. Ergativity is thus not a property of the thematic vP system, but of the T-system. In contrast, inherent case is preserved whenever the thematic vP system that assigns it is present, including in infinitives under ECM verbs as in Icelandic (3)-(5).

Transitive subjects in Basque bear ergative case in finite clauses and most nonfinite ones, but in nonfinite perception verb complements they are absolutive. Thus, the finite complement (8)a with ergative *katuek* corresponds to the nonfinite *tzen*-gerund in (8)b with absolutive *katuak*, while the coding of other arguments is unaffected:

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

- a. Katu-ek sagu-ak harrapa-tu / harrapa-tzen dituzte-la ikusi dut  
 cat-d.pE mouse-d.pA caught / catch-ing AUX.3pA.3pE-that seen AUX.1sE  
 I saw that the cats caught / were catching the mice.
- b. Katu-ak sagu-ak harrapa-tzen ikusi ditut  
 cat-d.pA mouse-d.pA catch-ing seen AUX.3pA.1sE  
 I saw the cats catch the mice.

We will show that the absence of ergativity in *tzen* gerunds correlates with a defective T, paralleling the absence of subject Case and defective T in English perception infinitives. In other nonfinite clauses with overt subjects, transitive subjects are ergative, including in the *tze-a*-gerund in (8)c:

- c. Katu-ek sagu-ak harrapa-tze-ak harritu nau  
 cat-d.pE mouse-d.pA catch-ing-d.sE surprised AUX.1sA.3sE

<sup>6</sup> When not otherwise noted, judgments are those of PA and RE, speakers of central dialects with typically but not exclusively ergative subjects for the agentive unergatives in Aldai (2009: 801).

The cats catching the mice surprised me.

(The case given for *katu-* 'cat' is the only option.)

These *tze-a*-gerunds have the distribution, determiners layer, and external case-marking of DPs, and as we shall see, a nondefective T that assigns ergative. In all these respects they are parallel to English ACC-*ing* gerunds of the translation of (8)c, which also have a nondefective and Case-assigning T (Pires 2007, Abney 1987: 6.1; English realizes Case from a complete T as nominative for finite T and accusative for nonfinite T, Basque both as ergative).

### 3.2 Perception verb complement gerunds

Basque and English nonfinite perception complements are similar, and the well-studied properties of English can guide the analysis of Basque (Felser 1998, 1999). English perception verb + DP + nonfinite VP strings realize the two structures in (9):

#### (9) *Perception verb structures*

- |    |  |                   |
|----|--|-------------------|
| a. | [V <sub>perception</sub> DP <sub>i</sub> ] [PRO <sub>i</sub> T <sub>complete</sub> gerund] | <i>adjunct</i>    |
| b. | [V <sub>perception</sub> [DP T <sub>defective</sub> gerund/infinitive]]                    | <i>complement</i> |

In the adjunct structure (9)a, the DP is an argument of the perception verb and the gerund is a clausal adjunct with PRO controlled by the DP. This structure entails perception of the referent of the DP, and allows passivization on it: *We saw John (as he was) falling, John was seen (as he was) falling*. In the complement structure, (9)b, the object of perception is [DP gerund/infinitive]. There is no thematic relationship between the perception verb and the DP, so that perception of the referent of the DP is not entailed, and passivization on it is not allowed: *We saw the temperature falling/fall* vs. *#We saw the temperature (as it was falling), The temperature was seen #falling/\*fall*. It is this second structure that is of interest to us, because the DP belongs thematically to the nonfinite clause as its subject. Consequently, if the DP behaves differently for case and agreement in it than it does in a finite clause, it is not because of any differences in the vP where thematic interpretation occurs and which the nonfinite clause has, but in higher structure. In English, the nonfinite clause has a defective T-system, leaving it with no source of nominative, and allowing accusative assignment under ECM. Basque leads to the same conclusions, with ergative for nominative and absolutive for accusative.<sup>7</sup>

The existence of the [DP gerund] structure (9)b in Basque can be shown similarly to the way it has been in English. First, [DP gerund] can be isolated as a constituent (Arteax 2007: 32f.). (10) uses response fragments to do so, contrasting the perception complement [DP gerund] with object control DP + [PRO gerund]. We assume that

<sup>7</sup> In English, perception complements but not adjuncts can use the infinitive, with perfective or imperfective readings, while the gerund occurs in both adjunct and complement structures but allows only imperfective readings. The Basque *tzen* gerund is like the English gerund in occurring in both complement and adjunct structures and like the English infinitive in allowing both perfective and imperfective readings. English has a third structure for the gerund as a DP-internal modifier, unavailable in Basque.

response fragments are constituents stranded by deletion (Merchant 2004). The control example (10)b is ungrammatical because *Miren* and [*PRO play the piano*] do not form a constituent to the exclusion of the control verb, or at least not one that can be stranded by deletion (a phase). In the perception example (10)a, [*Miren play the piano*] is such a constituent. The absolutive of *Miren* shows that it has been stranded by deletion of the matrix perception clause, because transitive subjects are not absolutive in any other context, including in other uses of *tzen* gerunds which require PRO (see 3.3 below).

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

- 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 play 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 her/Miren do? (\*Miren) play the piano.  
 (The case given for *Miren* is the only option.)

Second, agreement suggests that there is a clausal boundary between the perception verb and [DP gerund]. Agreement with absolutive arguments of the agreeing clause is obligatory, including in (11) if *janzten* 'dress(ing)' were omitted. However, agreement of a perception verb with the 3<sup>rd</sup> person absolutive subject of its [DP gerund] complement is optional for some speakers. In Basque, such optionality occurs elsewhere when agreement crosses a clausal boundary (Etxepare 2006, 2012, Preminger 2009, Etxepare and Etxeberria 2009), and a similar state of affairs obtains in Icelandic raising structures (Schütze 1997, Sigurðsson and Holmberg 2008, Ussery 2009).<sup>8</sup>

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

Azken hilabeteotan [gazte-ak kale erdi-an janzen] ikusi ditut/dut.  
 in these last months young-d.pA street middle-d.in dress-ing seen AUX.3pA/3sA.1sE  
 These last months I have seen young people dress in the middle of the street.

Third and most revealing, sometimes the DP of perception [DP gerund] can be shown to be argument of the gerund only. This is so in (12). Here perception is of [DP gerund] and not of the referent of the DP, which is impossible or odd, so only [DP gerund] and not the DP is an argument of the perception verb (Arteatx 2007: 41f.). Transitive (12)c and unergative (12)a subject DPs in this situation instantiate external arguments that are absolutive rather than ergative, divorcing ergativity from external argumenthood.

<sup>8</sup> Some speakers require agreement (Arteatx 2007: 35). Nonagreement is only optional, so that the perception complement structures in (12) allow agreement; it is available for subjects of both unaccusatives and transitives, so that (8)b allows nonagreeing *dut* AUX.3sA.3sE beside *ditut*; and it is not reducible to the absolutive being low in the gerund, since low absolutes may agree, as discussed for ex. (32) below. Similar optional nonagreement in Icelandic has been attributed to intervention of the infinitival boundary in agreement but not Case assignment; see Chomsky (2000: 128) and the literature cited above.

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

- a. Miren-ek temperatura #(gora egi-ten) ikusi zuen.  
Miren-E temperature.d.sA up do-ing seen AUX.3sA.3sE  
Miren saw the temperature #(go up).
- b. Jon-ek eskailer-ak #(eror-tzen) entzun ditu.  
Jon-E stairs-d.pA fall-ing heard AUX.3pA.3sE  
Jon heard the stairs #(fall).
- c. 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 the trees).

More strikingly still, the imperceptible DP may be an idiom chunk. In (13) *ur-*, independently meaning 'water', is part of an idiom meaning 'time passes', and then lacks the meaning 'water'. As a transitive subject, it is ordinarily ergative, (13)a, but in a *tzen* gerund under a perception verb it is absolutive, (13)b. The idiomatic meaning requires that *ur-* be argument of the gerund only, in the complement structure (9)b, not of the perception verb which would entail perception of 'water'. In both (13)a and (13)b then, *ur-* has the same argument-predicate relations, yet its case switches from ergative (13)a to absolutive (13)b, demonstrating the divorce of ergativity and argumenthood.

(13) *Basque: ERG → ABS idiom chunk under ECM (idiom in boldface)*

- a. Kontu horretan, **ur-ak bide egin** du azken urteotan.  
in this matter water-d.sE way made AUX.3sE in these last years  
In this matter, things have advanced these last years.
- b. Kontu horretan, **ur-a bide egiten** ikusi dugu azken urteotan.  
water-d.sA way mak-ing seen AUX.3sA.1pE  
In this matter, we have seen things advance these last years.

In all these examples, transitive subjects that would be ergative in finite clauses and other nonfinite clauses are absolutive in perception complement gerunds, showing that ergativity/absolutivity is independent of argumenthood (thematic) relations.<sup>9</sup> We must now localize the difference between the two groups. It does not lie in the thematic system of the vP, since transitive subjects have the same thematic interpretation throughout, as in (12)c where 'wind' has the same agent-cause interpretation as in a corresponding finite clause. It must lie in the supra-vP functional layers, specifically, we posit, a defective T.

In English, the subjects of perception complements get accusative from the upstairs clause under ECM because they have neither the nominative-assigning T of finite clauses nor the accusative/genitive assigning (D-)C-T system of POSS/ACC-ing gerunds (Pires 2007, Abney 1987). Concomitantly, their T-system is defective, unlike that of POSS/ACC-ing gerunds: it cannot host sentential negation, perfect and progressive auxiliaries, and adverbs whose temporal reference is distinct from the matrix clause, as in

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<sup>9</sup> The strongest examples, (12) and (13), have been confirmed both in central dialects with split-S alignment that are the focus of our study, and in eastern ones with more ergative alignment.

Today I saw the temperature (\*not) rise (in the morning/\*last year) beside Today I saw that the temperature did not rise last year (Felser 1998, 1999). Arteatx (2007) demonstrates that Basque perception complements *tzen*-gerunds have the same restrictions; we illustrate this in (14)b/(14)c in contrast to nondefective *tze-a*-gerunds in (14)a.

First, Basque sentential negation *ez* belongs to the T-system, where it licenses negative polarity items in subject position (Laka 1990). *Tze-a*-gerunds can host it and license *ezer-* in (14)a, but perception complement *tzen* gerunds (14)b cannot:

(14) Basque: defective T-system of [DP gerund] perception complements

- a. Gaur harritu nau [iaz ezer-k gora ez egi-te-ak].  
 today surprised AUX.1sA.3sE last.year anything-E up not do-ing-d.sE  
 Nothing going up last year surprised me today.
- b. [\*Ezer / \*ezer-k gora ez egi-ten] ikusi dut.  
 anything.A / anything-E up not do-ing seen AUX.3sA.1sE  
 Intended: I saw nothing go up.

Second, *tze-a* gerunds can license temporal adverbs distinct from matrix time like *iaz* 'last year', (14)a, but perception complement *tzen* gerunds cannot (14)c, although adverbs delimiting matrix time are fine and may indicate a defective TP host even in them:

- c. [Tenperatura (?goizean/\*iaz) gora egi-ten] ikusi dut gaur.  
 temperature.A in.the.morning/last.year up do-ing seen AUX.3sA.1sE today  
 Today I saw the temperature go up ?in the morning/\*last year. (Cf. Tenperaturak iaz  
 gora egin zuela ikusi dut gaur 'I saw today that the temperature went up last year'.)

Third, perfect and progressive auxiliaries are not available, which is illustrated in 3.4.

We conclude therefore that ergativity like nominativity requires a nondefective T-system, present in finite clauses and in *tze-a*-gerunds but not in perception complement *tzen* gerunds. We shall designate the locus of ergativity T<sub>ERG</sub>, a cover term for possibilities such as Fin<sub>ERG</sub>. Perception complements *tzen* gerunds lack T<sub>ERG</sub>, having either no T or defective T<sub>def</sub>; we shall tentatively assume the latter (Rezac in prep.)<sup>10</sup>

### 3.3 Case in perception complement *tzen* gerunds

Our conclusion that perception complement *tzen* gerunds project the transitive subject in the complement structure (9)b without ergativity is independent of how it gets to be absolutive. There is evidence for Exceptional Case Marking ECM by the perception verb. Basque *tze-a*-gerunds and English ACC-*ing* gerunds have a nonfinite T that licenses overt

<sup>10</sup> Deficiencies in supra-vP architecture can be of different sorts; in English ECM bare infinitive perception complements are more deficient than *to*-infinitive ECM/raising complements for temporal specification and sentential negation, though both lack nominative Case and overt or PRO subject licensing (see Martin 2001, Landau 2004: 861). Thus absence of T-Case need not imply temporal/negation deficiency, but such deficiency does seem to imply absence of T-Case.

transitive subjects, ergative in Basque and accusative in English. *Tzen*-gerunds, by contrast, do not elsewhere license overt subjects at all: they have controlled PRO as progressive adjuncts (3.4) and as complements to verbs like *ahaztu* 'forget' (Artiagoitia 2003: 4.10.1.2.2.2, 4.10.1.2.5), and PRO or no subject as restructuring complements in progressive periphrases (Ortiz de Urbina 2003c, Laka 2006a). This suggests that the overt subject in the perception complement is licensed by the perception verb through ECM. ECM is arguably also reflected in agreement between perception verb and the complement's subject, illustrated in (12)b (Arteatx 2007). The ECM analysis requires absolutive Case to be structural, uncontroversially for Basque (section 5).<sup>11</sup>

In contrast to transitive subjects, the absolutivity of transitive objects in *tzen* gerunds must come from the gerund itself and from an infra-T system in it. Upstairs Agree/Case is taken up by the gerund's subject, and the object is absolutive in all uses of *tzen* gerunds. Since perception complement *tzen* gerunds have a full vP but a defective T-system without Case, the locus of absolutivity for the object should lie in the vP. We designate it  $v_{ABS}$ , as a cover for other options such as  $Asp_{ABS}$ . This extends the parallelism between the Basque ergative-absolutive system and the English nominative-accusative one: in both, defectiveness of the T-system removes the Agree/Case system of transitive subjects, ergative/nominative, but keeps the one of transitive objects, accusative/absolutive.

### 3.4 Adjunct gerunds

Further insight into ergativity comes from contrast between gerunds as perception complements (9)b and as adjuncts (9)a. The latter structure exists in Basque, and strikingly, it licenses the ergative, but also proves to have a richer T-system.

The elements that allow us to differentiate complement and adjunct *tzen* gerunds are *intensive pronouns* (see Belletti 2008, Szabolcsi 2010 for possible analogues). They are illustrated by *ZEU-k* 'you', *BERA-k* 'he' in the full *tze-a-* gerund (15)a.

(15) *Basque: Intensive pronouns in gerunds*

- |    |         |        |              |         |      |
|----|---------|--------|--------------|---------|------|
| a. | [Pareta | ZEU-k  | pintatze-ak] | harritu | nau. |
|    | [Pareta | BERA-k | pintatze-ak] | harritu | nau. |

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<sup>11</sup> The argument needs to be hedged. On the one hand, agreement is optional for some speakers, as discussed above; but so it is in English and Icelandic expletive raising constructions while nominative is assigned without it (see note 8). On the other hand, in Basque agreement can occur with goals Case-licensed independently of it (section 5); but this excludes precisely independently Case-licensed subjects, unlike here (Etxepare 2006, 2012). Arteatx (2007) takes optional partitive on the subject of perception complements under matrix negation as 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). Arteatx also proposes that ECM can be accompanied by Object Shift, giving for (11) the alternative word order *Gazte-ak ikusi ditut/\*dut* [*kale erdi-an janz-ten azken hilabete-otan*], 'young.people-d.pA seen AUX.3pA/\*3sA.1sE [street middle-d.s.in dress-ing last months-these.in]'; but this is restricted to perceptible, agreeing DPs, leaving it unclear whether it reflects Object Shift with interpretive restrictions, focus fronting, or simply the adjunct structure (9)a (as a reviewer suggests). Finally, we leave open whether the subject of unaccusatives Agrees with the  $v_{ABS}$  of the gerund or the perception verb or with both; the same issue is discussed in section 5 regarding the structure (49)e.

wall.d.sA YOU-E/HE-E paint-ing-d.sE surprised AUX.1sA.3sE  
 [You/Him painting the wall yourself/himself] surprised me.

*Tzen* gerunds with perception verbs may also host them, *ZEU-k* in (15)b:

- b. (Pareta) ZEU-k (\*pareta) pinta-tzen ikusi zaitugu.  
 wall.d.sA you-E pant-ing seen AUX.2sA.1pE  
 We saw you painting (the wall).

Two properties distinguish these pronouns from regular subjects in (15)c. First, these pronouns can be ergative even in *tzen* gerunds with perception verbs, (15)b, unlike regular pronouns, (15)c (cf. Arteatx 2007: 34 note 5):

- c. Jon(\*-ek)/zu(\*-k) pareta pintza-tzen ikusi dugu/zaitugu.  
 Jon.A(\*-E)/you.A(\*-E) wall.d.sA paing-ing seen AUX.3sA/2sA.1pE  
 We saw Jon/you painting the wall.

Second, they must occur in the immediately preverbal focus position (q.v. Etxepare and Ortiz de Urbina 2003), so that in (15)b, *ZEU-k* is within the gerund, which provides this position before *pintatzen* 'painting', not in the matrix, where the position before *ikusi* 'seen' is occupied, and in the gerund *ZEU-k* triggers the marked OSV order.

We will show that intensive pronouns only occur in adjunct structure [PRO<sub>i</sub> \_\_\_<sub>i</sub> gerund] (9)a, and not complement [DP<sub>i</sub> \_\_\_<sub>i</sub> gerund] structure (9)b, and that the adjunct has a richer T-system than the complement, which contributes the source of ergativity.

The adjunct status of gerunds with ergative intensive pronouns in perception structures can be detected through island effects, which bar *wh*-extraction out of adjuncts but not out of complements.<sup>12</sup> Extraction of the object of the gerund in perception structures is fine without an intensive pronoun, (16)a and (16)b without *ZEU/ZEUK*, but not with an ergative one, *ZEUK* in (16)b:<sup>13</sup>

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

- a. Zer<sub>i</sub> ikusi dute Jon/\*Jon-ek egi-ten t<sub>i</sub>?  
 what see AUX.3sA.3pE Jon.A/Jon-E do-ing  
 What did they see Jon doing?
- b. Zer<sub>i</sub> ikusi zaituzte Ø / zu / \*ZEU-k / ZEURE,\*PA egi-ten t<sub>i</sub>?  
 what see AUX.2pA.3sE Ø / you.A you-E / you.A do-ing  
 What did they see you/YOU doing?

<sup>12</sup> Arteatx (2007: 37f.) discusses *wh*-extraction in perception structures. Some speakers prefer pied-piping the gerund, [*Zer egiten*] *ikusi zaituzte* 'what.A do-ing] seen AUX.2pA.3pE' for (16)b, because it avoids the ambiguity of interpreting the absolutive *wh*-word as subject or object gap (cf. Milner 1982 for French).

<sup>13</sup> RE and PA refer to Ricardo Etxepare and Pablo Albizu respectively. A star on either means that the relevant author does not accept the example.

Extraction past the intensive pronoun itself is not the culprit: some speakers allow it past an absolutive intensive pronoun, *ZEU* in (16)b, which thus arguably occurs in the complement structure from which extraction is legitimate, while those who do not arguably lack the preverbal focus position in that structure. It is only the ergative intensive pronoun that bars extraction, indicating that it is only licensed in the adjunct structure from which extraction is barred. Thus the *tzen* gerund structure that licenses the ergative is necessarily the adjunct gerund that blocks extraction.

Word order also indicates that ergative intensive pronouns require the adjunct structure. In the complement structure, the whole complement can precede the perception verb, (17)a, and perhaps the complement's subject alone can as well, (17)b (see note 11). The adjunct structure should surface as the same string as the latter, object + perception verb + adjunct, but have the structure indicated in (17)c.

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

- a. [Patxiku izkina horretan Miren-i drog-ak salt-zen]<sub>compl</sub> ikusi dut.  
 Patxiku.A corner this.in Miren-D drug-d.pA sell-ing seen AUX.3sA.1sE  
 I saw Patxiku sell(ing) drugs to Miren in that corner.
- b. Patxiku<sub>i</sub> ikusi dut [t<sub>i</sub> izkina horretan Mireni drogak saltzen]<sub>compl</sub>.  
 Patxiku.A seen AUX.3sA.1sE corner this.in Miren-D drug-d.pA sell-ing
- c. [Patxiku<sub>i</sub> ikusi]<sub>vp</sub> dut [PRO<sub>i</sub> izkina horretan Mireni drogak saltzen]<sub>adjunct</sub>.  
 Patxiku.A seen AUX.3sA.1sE corner this.in Miren-D drug-d.pA sell-ing

Ergative intensive pronouns can be shown to be restricted to the adjunct structure. They can occur in the order object + perception verb + adjunct compatible with the adjunct structure, (17)d like (17)c, but not in the order complement + perception verb of the complement structure, (17)e versus (17)a:<sup>14</sup>

- d. Patxiku ikusi dut [ardo guztia BERAK bakarrik edaten].  
 Patxiku.A seen AUX.3sA.1sE wine all-d.sA HE-E alone drink-ing  
 I saw Patxiku drinking all the wine HIMSELF alone.
- e. \*[Patxiku ardo guzti-a BERAK bakarrik edaten] ikusi dut.  
 Patxiku.A wine all-d.sA HE-E alone drink-ing seen AUX.3sA.1sE

The licensing of ergatives in adjunct gerunds leads us to expect them to have a richer T system than complement gerunds. This is suggested by the progressive auxiliary *ari* (q.v. Ortiz de Urbina 2003c; Laka 2006a). (18) shows that *tzen* gerunds can host *ari*, (18)a, but only when the gerund may be analysed as an adjunct; when extraction in (18)b and word order in (18)c force the complement order, *ari* is barred.<sup>15</sup>

<sup>14</sup> The string (17)e does exist for the adjunct structure, but only as topicalization of the perception verb object + focus fronting of the adjunct, [Patxiku.A]<sub>TOP</sub> [wine all.the (HIM.E) alone drinking]<sub>FOC</sub> seen AUX 'As for Patxiku, I saw him drinking all the wine (HIMSELF) alone' (cf. Arteatx 2007: 38 note 12).

<sup>15</sup> Use of *ari* is mostly not compulsory to express the progressive (Hualde, Oyharçabal and Ortiz de Urbina 2003: 251); some speakers perhaps omit it in *tzen* gerunds generally, unlike in finite clauses. It is difficult to further probe the adjunct gerund T-system: the subject is PRO so we cannot test for sentential negation

(18) *Basque: progressive in tzen gerunds*

- a. Xabier ikusi dugu, eror-tzen (ari<sub>RE,\*PA</sub>).  
 Xabier.A seen AUX.3sA.1pE fall-ing PROG  
 We saw Xabier, falling.
- b. \*Non ikusi duzu Jon eror-tzen ari \_\_\_?  
 where see AUX.3sA.2sE Jon.A fall-ing PROG  
 Intended: Where did you see Jon falling \_\_\_? (*on embedded scope of where*)
- c. \*[Xabier eror-tzen ari] ikusi dugu.  
 Xabier.A fall-ing PROG see AUX.3sA.1pE  
 Intended: We saw Xabier falling.

Independently of temporal structure, evidence for the richness of T in adjunct gerunds comes from their licensing of PRO. The licensing of PRO is a property of rich C/T-systems, in contrast to the defective one of nonfinite structures that need ECM for subject licensing (Chomsky and Lasnik 1995, Chomsky 2000, 2001, Landau 2004).

Thus adjunct *tzen* gerunds correlate presence of the following properties: ergativity, subject PRO, and T to host aspectual auxiliaries. These very same properties also characterize another use of *tzen* gerunds, as obligatory control complements to verbs like *ahaztu* 'forget' (Artiagoitia 2003: 170). In contrast, perception complement *tzen* gerunds lack them all. Ergativity comes with a nondefective T-system.

### 3.5 Overview

Perception complement gerunds have led us to the following conclusions:

- Ergativity is independent of the relations that otherwise ergative arguments have with the thematic system of the vP, which is present in these gerunds without ergativity.
- Ergativity comes from a nondefective T-system; these gerunds lack tense, sentential negation, and subject licensing, correlating with absence of ergativity.
- Absolutivity can be conferred by ECM, confirming its structural character.
- The absolutivity of transitive objects remains in these gerunds and thus comes from their v-system, which remains intact, rather than their defective T-system.

The structures we have discussed are schematized in (19):

(19) *Agree/Case structure of transitives: regular and in ECM*

- a. [EA<sub>ERG</sub>T<sub>full,+ERG</sub> [vP t<sub>EA</sub> V<sub>ABS</sub> O<sub>ABS</sub>]] (finite, *tzea*, *tzen* with PRO)
- b. V<sub>ABS</sub>+V<sub>pcp</sub>. [EA<sub>ABS</sub>T<sub>def,-ERG</sub> [vP t<sub>EA</sub> V<sub>ABS</sub> O<sub>ABS</sub>]] (ECM *tzen* gerunds)

---

using subject NPIs, and the event needs to be simultaneous with the host clause, like *as/while* adjuncts (see Felser 1998, 1999 for analysis through event control).

Basque ergativity cannot reflect the inherent Case relationship between argument and predicate, as the IEH posits. This relationship holds between the external argument and *v*, allowing *v* to code it as an inherent ergative in systems other than that of Basque. It might be extended to include aspect if aspect can affect the selectional properties of *v*, for instance by being in *v*, which would allow for aspect-based yet inherent ergativity of systems like Hindi (section 5; cf. Felser's 1998, 1999 analysis of perception infinitives as Asp-*v* to allow perfective and imperfective readings despite a defective T). The T-system has no such relationship to the external argument, neither requiring it nor affecting its interpretation. Ergativity in Basque resides in the T-system and thus is a structural Case relationship. In this the Basque ergative is parallel to the English or Icelandic nominative: both are structural and depend on nondefective T.

## 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 defective, indicating that the locus of ergativity lies there and not in the thematic *vP* system. In this section, we will make the same argument inversely from raising-to-ergative: ergative agreement and case emerge on the subject of intransitives through raising without a corresponding thematic relation. We will also show that ergative agreement can occur under Agree alone, but ergative case assignment requires movement. The existence of raising-to-ergative is particularly important in the study of ergativity, for it has been proposed that it is universally absent in both ergative and split-S aligned systems (Marantz 2000), and deriving this has been an important argument in favour of the IEH (Woolford 2006, Legate 2008, 2012).

Our argument is built using the Basque INF + *behar* 'must, should (root, epistemic)' construction, parallel to English *must* + INF. Raising structures are defined by an embedded clause where a DP originates thematically and syntactically, and a matrix clause that provides the DP with an A-position but no additional thematic interpretation. This results in distinctive properties that may be illustrated by English modal structures in (20) (Wurmbrand and Bobaljik 1999, von Stechow and Iatridou 2003, Portner 2009). First, the matrix A-position may be occupied by elements that cannot be interpretively associated with the matrix predicate, including expletives, (20)a, and idiom chunks, (20)b. Second, if raising does occur, the raised DP may reconstruct both for thematic and scopal interpretation to the lower clause, as in (20)b and (20)c, since it has a pre-movement position there. Third, the relationship between the matrix and embedded position is restricted by constraints on A-movement, such as relativized minimality.

(20) *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 &gt; one</i> ] | <i>Inverse scope</i> |

d. \*A prize must have been awarded the book *t*.

*A-movement locality*

Like English INF + *must*, Basque INF + *behar* proves to be a raising construction, but raising confers ergativity on the raisee even if it would otherwise be absolutive. Thus ergativity is again dissociated from thematic relations.<sup>16</sup>

We first establish that raising rather than control or complex predicate formation is involved, from thematic and scopal reconstruction (4.3). Then we turn to ergative-absolutive alternations of the subject of INF + *behar*, which mirror raising-expletive alternations in English (4.4). These show that ergative agreement is due to Agree with T<sub>ERG</sub>, but that ergative case is assigned only upon raising to Spec,T<sub>ERG</sub>, while otherwise absolutive case from v<sub>ABS</sub> emerges (4.5). If a dative intervenes between T<sub>ERG</sub> and the subject of INF, ergative agreement is blocked, giving an ergative-absolutive alternation due to syntactic intervention (4.6). Thereafter we present our analysis (section 5).

#### 4.2 The INF + *behar* construction

Basque INF + *behar* has the following properties, illustrated by (21) (Etxepare and Uribe-Etxebarria 2009, 2012, Ortiz de Urbina 1989, 2003d: 3.5.6.1, Artiagoitia 2003: 4.10.1.2.3, San Martin 2004, Haddican 2005, Goenaga 2006, de Rijk 2008: chapter 14):

- The main verb is in a nonfinite form which we call INF (*bidali*, *etorri*).
- The modality is added by *behar* 'must', related to the noun *behar* 'need', but now morphologically distinct from nouns and partly verbal (see note 39 for details).
- INF and *behar* share a single auxiliary bearing tense and agreement (*dizkiete*, *dute*).
- The nonsubject arguments of the embedded 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 embedded verb is ergative in case and agreement, both that of transitives (*bidali* 'send') and some unergatives, which would be ergative outside INF + *behar*, and that of other intransitives (*etorri* 'come'), which would be absolutive.

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

- a. Jon-ek eta Miren-ek<sub>k</sub> lagun-ei<sub>j</sub> liburu-ak<sub>i</sub> bidali behar di-zki<sub>i</sub>-e<sub>j</sub>-te<sub>k</sub>.  
Jon-E and Miren-E friends-d.pD book-d.pA send must AUX-3pA<sub>i</sub>-3pD<sub>j</sub>-3pE<sub>k</sub>.  
Jon and Miren must send friends books.
- b. Jon-ek eta Miren-ek<sub>i</sub> etorri behar du-te<sub>j</sub>.

---

<sup>16</sup> Infinitives are the easiest structures from which to establish raising, because they allow testing scope and idiom reconstruction. Artiagoitia (2001ab, 2003: 4.10.1.1.9) argues that Basque also has raising with *seem*. We are sympathetic to Artiagoitia's conclusions, but we have put *seem* constructions aside for two reasons. First, raising out of small clauses is difficult to demonstrate since they do not lend themselves to idiom and scope reconstruction tests (Stowell 1978, 1991, Couquaux 1981, Burzio 1986: 2.7 versus Williams 1983). Second, some speakers allow copy-raising out of finite clauses, but this makes for a complex argument due to interference from thematic uses of *seem* and the ill-understood properties of copy-raising (for comparison with English, see Rezac 2011a: 216f.; in 5.3 we support Artiagoitia's analysis).

Jon-E and Miren-E come must AUX-3pE.  
 Jon and Miren must come.

The ergative case and agreement of the subject of INF + *behar* is due to *behar*, since it affects subjects of intransitives that would be absolutive otherwise. To account for this, three analytical options present themselves. One is *raising*, where the infinitive thematically introduces the subject, and *behar* provides its ergativity by Agree/Move without affecting thematic relations (Davies and Dubinsky 2004). The second is *control*, where *behar* thematically introduces the ergative subject, and it relates to the silent thematic subject of INF by the theory of control (through PRO, Landau 2001, or theta-to-theta movement, Boeckx, Hornstein and Nunes 2010). The third is as a *complex predicate*, where *behar* and INF form a single thematic domain whose subject is introduced by *behar* (Williams 1983, Chierchia 1984, Wurmbrand 2001, Cinque 2004). We argue for the raising analysis, illustrated in (22) for an unaccusative INF, by showing that the ergative can reconstruct to within INF and appear in it in existential constructions.

(22) [S<sub>ERG</sub> [[<sub>VP</sub> V<sub>ABS</sub> ... t<sub>SU</sub> ...] *behar*] T<sub>ERG</sub>] raising in unaccusative INF + *behar*

We have investigated this INF + *behar* raising structure only for speakers of central dialects with split-S alignment, where unergatives often take ergative subjects, though dialects with more ergative alignment are known to show some of our raising patterns, notably that of section 4.6. In the most ergatively aligned dialect, there exists an INF + *behar* structure where the object of INF raises to ergative, and we include it in our discussion.

### 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 of control or complex predicates.

#### 4.3.1 *Reconstruction for thematic interpretation – Raising of subjects*

Reconstruction for thematic interpretation can be tested using DPs incompatible with the theta-role assigned by the higher predicate. Clearest of all are idiom chunks, because they receive interpretation solely within the idiom and do not have the independent meaning needed to be arguments of another predicate. Thus in English, they may participate in raising, but not in control, nor in complex predicates that would add a theta-role upstairs: hence the contrast *The shit must/#wants/#tries to hit the fan* for the meaning *It is necessary/desired/sought that the shit hit the fan*.

In Basque, the raising character of INF + *behar* may be introduced by contrasting two structures analogous in English to the raising modal *need/must* + INF and the noun *need* + control INF, as in *The shit needs t to hit the fan* versus *#The shit has a need to hit the fan*. The raising structure, (23)a, is [INF *behar*<sub>V</sub> 'must'] + AUX, transparent to agreement

and scrambling and with no theta-role imposed on the raisee-to-ergative beyond those of INF. The control structure, (23)b, uses the noun *behar* 'need' in [DP [NP INF *behar*<sub>N</sub> 'need']-a<sub>D</sub>] + 'have', which is opaque to agreement and scrambling and requires its ergative subject to experience need. The subject *harri horrek* 'this stone.E', which cannot experience need, can occur in the raising but not in the control structure, whether INF is headed by the unaccusative *egon* 'be' whose subject would otherwise be absolutive or by the transitive *apurtu* 'break' whose subject would be ergative.

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

- a. Harri horr-ek {hor egon} / {leiho-a apurtu} behar du.  
 stone that-E there be window-d.sA break must AUX.3sE  
 That stone must {be there} / {break the window}. [*cf. modal* needs to]
- b. #Harri horr-ek {hor egon} / {leiho-a apurtu} beharr-a dauka.  
 stone that-E there be window-d.sA break must-d.sA have.3sA.3sE  
 #That stone has a need to {be there} / {break the window}.  
 (both good with *neska* 'girl' for *harri* 'stone')

The thematic inertness of raising *behar* comes out clearly with idioms in (24). (24)a-(24)d show idioms based on unaccusative verbs with otherwise absolutive subjects, while (24)e shows an idiom with an otherwise ergative subject. In each, raising to ergative in INF + *behar* 'must' is fine, but combination with INF *behar* 'need' -D *have* assigns a theta-role and thereby eliminates the idiomatic interpretation:

(24) *Basque: Reconstruction for idiom interpretation (idioms in boldface)*

- 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 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. Pilotak 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**.
- e. Ur-ak bide egin {behar du} / {#beharr-a dauka}.  
 water-d.sE way do must AUX.3sE / need-d.sA have.3sA.3sE  
**Things must advance**.

Thus in INF + *behar*, INF is the sole source of the thematic interpretation of the subject, and *behar* is a raising verb.

#### 4.3.2 Reconstruction for thematic interpretation: Raising of objects

In the Souletin dialect of Basque, there is a distinct INF + *behar* construction that involves the raising of the object of INF to ergative. We discuss it here, because it illustrates reconstruction for thematic interpretation of the ergative raisee, and by making raised objects ergative it clearly demonstrates the separation of ergativity and theta-roles that is characteristic of raising to ergative. The construction is illustrated in (25)a from Ortiz de Urbina (2003d: 307-8) and (25)b-(25)c based on Bedaxagar (2010):

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

- a. Haritzak ez du hola murriztu behar. [Duv. *Laborantzako Liburua*, 189]  
oak-d.sE not AUX.3sE thus prune must  
The oak should not be pruned that way (not: The oak does not need pruning that way)
- 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.

In this construction, a 3<sup>rd</sup> person thematic object of INF appears as the subject of INF + *behar*, ergative in both case and agreement. Although a full investigation remains pending, there are good reasons to believe it is raising.

First, thematically the ergative is interpreted only as object of INF, as is revealed by contrast with the superficially similar retroactive gerunds of English, *The oak needs* [*PRO<sub>i</sub> pruning t<sub>i</sub>*]. In English, the matrix subject is an argument of *need* and controls into the infinitive with internal passivization (Safir 1991). This gives the meaning of *It is not necessary for an oak that it be pruned*, where *need* imposes a thematic interpretation on *an oak*, rather than *It is not necessary that an oak be pruned*, where *an oak* is an argument of *prune* alone. Souletin Basque (25)a patterns with the latter. Similarly, the matrix theta-role leads to the contrast *The stop-signs need replacing/\*respecting*, parallel to *The stop-signs need replacement/\*respect*, beside *It is necessary to respect/replace the stop-signs*, and again Souletin INF + *behar* patterns with the latter.

Second, the Souletin construction but not the English retroactive gerund is limited to 3<sup>rd</sup> person, (25)b-(25)c. This has elsewhere been found to characterize structures where a transitive object participates in Agree/A-movement relations in a higher clause.<sup>17</sup>

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<sup>17</sup> This is illustrated in Czech (i), based on work leading to Dotlačil (2004), where it is analysed as Agree of upstairs T<sub>NOM</sub> with the object of the infinitive; see for similar constructions Medová (2009: 9.3.3) on Czech, Rezac (2011a: 5.6.4) on Finnish. The person restriction is imputable to some interference with Agree or licensing by Agree in the structure, but we leave open its nature; see accounts of person restrictions in Basque impersonal detransitivizations (Albizu 2001b, cf. Ortiz de Urbina 2003b) and Romance impersonal *se* constructions (Rezac 2011a, cf. D'Alessandro 2007, Mendikoetxea 2008, Medová 2009). It may be that such an impersonal occurs in the infinitive in the Souletin construction, making (25)a close to its English translation. Both Souletin and English are restricted to direct objects that can promote in passivization

These properties indicate that in the Souletin construction the object originates as the argument of INF alone, and relates by Agree/A-movement to the ergative locus contributed by *behar* without an accompanying thematic role. It is a telling testament to the separation of thematic interpretation and ergativity, and all the more valuable because Souletin has the most ergative S alignment of Basque dialects: virtually all unergatives take absolutive subjects (Coyos 1999, Aldai 2009).<sup>18</sup>

#### 4.3.3 Reconstruction for scope

Reconstruction for scope likewise shows that INF + *behar* involves raising and not control, and also that it is biclausal unlike a complex predicate. In English, the raising-control contrast is illustrated by raising *A guard seemed \_\_\_ to stand in front of every building*, which allows inverse scope *seem/every* > *a guard* meaning *It seemed that a guard stood in front of every building*, versus control, *#A guard decided PRO to stand in front of every building*, which lacks *decide/every* > *a guard* that are both found in *It was decided that a guard should stand in front of every building*. The explanation has three elements. First, A-movement to a nonthematic position permits a quantifier to take scope at a clause-denoting position on the path of movement, including infinitival vP. Second, control does not; on control theory this is because the quantifier binds pronoun-like PRO in the infinitive, while the movement theory of control posits that a quantifier must take scope once it has all its theta-roles (Hornstein 1998). Third, quantifiers in the infinitive cannot scope outside it (Cecchetto 2004). Inverse scope is also missing in constructions that have figured in theories of complex predicates, both control-like ones, *#A guard tried to stand in front of every building*, and raising-like ones, *Someone seems sick* which lacks the *seem* > *someone* reading of *Someone seems to be sick*. This has been attributed to the absence of movement from a lower position and/or of a clause-denoting site like the vP for quantifier interpretation (Williams 1983, Stowell 1991, Den Dikken 2007). INF + *behar* patterns with raising against control and complex predicates.

Basque prefers surface scope, but inverse scope is available in the preverbal focus position (cf. Kitagawa 1994, Deguchi 2006 for Japanese, and generally for surface scope and its exceptions, see Bobaljik and Wurmbrand 2012 and references therein). This gives

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(English) or detransitivization (Basque), showing that there is no A'-chain/*tough*-movement involved.

- (i) a Takovéhle zákony<sub>i</sub>?/lidi<sub>i</sub> nejdou [respektovat t<sub>i</sub>].  
 such laws/?people.NOM not.go.3PL respect.INF  
 It is not possible to respect such laws.  
 b \*Vy<sub>i</sub> nejdete [respektovat t<sub>i</sub>].  
 you.NOM not.go.2PL respect.INF  
 It is not possible to respect you.

<sup>18</sup> The parameter permitting object raising in Souletin is circumscribed by three desiderata: (i) *behar* and not INF determines the Agree/Case of the subject of the whole (see Etxepare and Uribe-Etxebarria 2009 on such variation in INF + *behar* and Cardinaletti and Shlonsky 2004 in Romance restructuring); (ii) the external argument of INF does not blocking matrix Agree/Case as regular PRO arguably does (cf. Dotlačil 2004, Etxepare 2012); (iii) there is a person restriction which implies structure as in note 17.

inverse scope with but not without focus in (26), where focus is indicated by majuscule. (26)a-b show this for the inverse scope of the ergative subject of a transitive:

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

- a. IRAKASLE-REN BAT-EK zaindu ditu ikasle guzti-ak.  
 teacher-GEN one-E 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-GEN one-E student all-d.pA supervised AUX.3pA.3sE  
 Some teacher or other supervised every student.  
 [some > every, \*every > some, focus impossible]

(26)c-(26)d shows the same for the absolutive subject of an intransitive:

- c. Nik dakidala, IRAKASLE-REN BAT mintzatu da ikasle guzti-ekin.  
 As far as I know teacher-GEN one.A 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-GEN one.A 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]

In control constructions, inverse scope is impossible even under focus, (27). This is so both for control verbs whose subject/controller is ergative, *erabaki* 'decide' in (27)a, and for those whose subject/controller is absolutive, *ahalegindu* 'try' in (27)b.

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

- a. IRAKASLE-REN BAT-EK erabaki du ikasle guzti-ak zaintzea.  
 teacher-GEN one-E 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 ahalegindu da ikasle guzti-ak zaintzen.  
 teacher-GEN one.A 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* by contrast, the ergative subject may take inverse scope under focus. Example (28) shows this for transitive subjects, which would independently be ergative. In (28)a the ergative raisee scopes below the embedded object, while in (28)b the ergative raisee scopes below the matrix verb *behar*.

(28) *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-GEN one-E 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-E 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]

Example (29) extends this to intransitives like *mintzatu* 'talk', *ezkondu* 'marry' whose subject would independently be absolutive. The raisees, which are ergative only by virtue of being in INF + *behar*, scope below embedded quantifiers.

(29) *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-GEN one-E 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-REN BAT-EK ezkondu behar du imigrante guzti-ekin.  
 local-GEN one-E 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]

The same occurs with subjects of unaccusatives like *gelditu* 'remain', (29)c:<sup>19</sup>

- c. BERTAKO-REN BAT-EK gelditu behar-ko du inmigrante guzti-ekin.  
 local-GEN one.E remain need-FUT AUX.3sA immigrant all-d.p.with  
 SOME LOCAL OR OTHER will have to remain with every immigrant.  
 [some > every, every > some]

This pattern follows from the raising analysis (22): the subject originates in INF where it can reconstruct below *behar* and downstairs quantifiers. Control does not permit reconstruction, in English or Basque, and neither do relevant constructions that have been analysed as complex predicates.

#### 4.3.4 The structure of raising INF + behar

<sup>19</sup> In some cases with unaccusatives, the existential reading accompanying low scope prefers the existential expletive construction, as discussed in 4.3.4 for ex. (40).

Reconstruction establishes that INF + *behar* is a raising-to-ergative construction. We shall end this subsection by examining the functional architecture brought by INF and by *behar*. *Behar* does not assign a theta-role, so INF must be a complete domain for theta assignment: the vP. It is also a domain with a clause-denoting node above the argumental layer for quantifiers to take scope, which makes it at least a vP.

The upper bound on what is in INF can be established by the tests that we have used for perception complement gerunds in ex. (14). (30) illustrates the failure to license an independent subject (*anaia*), temporal adverbs independent of matrix tense (*gaur*), negation (*ez*), and the preverbal focus position (*BERA*), following Etxepare and Uribe-Etxebarria (2009, 2012). This indicates a defective or no TP.<sup>20</sup>

- (30) INF + *behar* => \**own subject*, \**negation*, \**tense*, \**focus*, *transparent to AGR*  
 Jon-ek atzo [(*\*anaia*) (*\*gaur*) etxean (*\*BERA*) (*\*ez*) geratu] behar zu-en  
 Jon-E yesterday brother.A today at.home HIM.A not stay must AUX.3sE-PAST  
 Yesterday Jon had to stay at home.  
 Unavailable: Yesterday Jon needed (for his brother) (not) to stay at home (today).

We conclude that in INF + *behar*, INF is the vP domain of all theta-assignment, while *behar* brings T<sub>ERG</sub> which raises INF's subject to ergative, without assigning a theta-role, as schematised in (22). T<sub>ERG</sub> thus behaves as T<sub>NOM</sub> does in English raising.

In the next subsection, we will show that the subject of INF can remain in-situ while still relating to T<sub>ERG</sub>, as occurs for T<sub>NOM</sub> in English expletive constructions.

#### 4.4 High and low positions: In-situ absolutive case + ergative agreement

Goenaga (2006: 461-3) observes cases where unaccusatives in INF + *behar* can occur with a subject absolutive in case but ergative in agreement. We will show that ergative and absolutive case correlate with readings of weak quantifiers in the same way as in high versus low subject positions, *Firemen must be available - There must be firemen available*. This ergative-absolutive alternation occurs without any change in thematic relations, again separating ergativity and the theta-system. Based on the parallelism with high-low subject positions in Germanic, we propose that subjects with absolutive case but

<sup>20</sup> A minimal contrast can be drawn between our INF + *behar* and the *behar* + INF structure studied in Etxepare and Uribe-Etxebarria (2009), whose INF does license negation and independent tense. Unlike INF + *behar*, it is a control structure whose subject must experience *need*, as shown in (i). The INF of INF + *behar* in (30) might be poorer than the gerund complement of perception structures in (14), if the latter but not the former licenses VP negation (Arteatx 2007) and for some speakers intensive pronouns (3.4, (16)b).

- (i) a Irakasle-ak/#Kartel-ak behar du [inor ez engainatu]. *behar* + INF  
 teacher-d.sE/sign-d.sE must AUX.3sE anyone not deceive  
 The teacher/#sign has to [not deceive anyone]. [control, embedded negation]  
 b Kartel-ak ez du [[inor engainatu] behar]. INF + *behar*  
 sign-d.sE not AUX.3sE anyone deceive must  
 The sign must not [deceive anyone]. [raising, matrix negation]

ergative agreement occur in the structure (31)a, remaining in INF but Agreeing with T<sub>ERG</sub> brought by *behar*. Subjects ergative in both case and agreement raise, (31)b.<sup>21</sup>

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

- a. (expletive) [[**3s/p.ABS** INF<sub>unacc</sub>] *behar*] T<sub>ERG</sub>=AUX.**3s/pE**  
 b. **3s/p.ERG<sub>i</sub>** [[*t<sub>i</sub>* INF<sub>unacc</sub>] *behar*] T<sub>ERG</sub>=AUX.**3s/pE**

(32) and (33) introduce the ergative-absolutive alternation, its interpretive correlates, and its restriction to unaccusatives.<sup>22</sup> (32) has the absolutive-subject unaccusative *geratu* 'remain'. When the subject is a plural NP with the determiner *-a* as here, it has the same readings as English bare plurals, kind, generic, and existential, as well as the definite reading. These readings remain in (32)b, where *geratu* is in INF + *behar*, but they appear with different cases: absolutive for the existential reading, ergative for other readings. We thus have in INF + *behar* an ergative-absolutive case alternation correlated with quantificational rather than thematic interpretation. Agreement is ergative in both cases.<sup>23</sup>

(32) *Basque: Ergative-absolutive alternations in INF<sub>unacc</sub> + behar*

- a. Museo-AK *geratu-ko dira*  
 museum-d.pA remain-FUT AUX.3pA  
 Museums [in general] will remain, There will remain museums.  
 b. Museo-EK/AK *geratu behar dute kultur ondarea ez galtzeko.*  
 museum-d.pE/d.pA remain must AUX.3pE for cultural heritage not to be lost  
 ERG: Museums [in general] must remain in order for cultural heritage not to be lost.  
 ABS: There must remain (some) museums in order for cultural heritage not to be lost.

(33) changes the example minimally to use the ergative-subject unergative *iraun* 'continue, last, endure' (q.v. note 5). When placed in INF + *behar*, the subject permits only ergative case and agreement. At the same time, both independently in (33)a and in INF + *behar* (33)b, it lacks the existential reading. Other transitives and unergatives behave the same way, except that some unergatives like *jantzi* 'dress oneself', *ezkondu* 'marry' take absolutive subjects outside INF + *behar* (section 2).

(33) *Basque: Ergative only in INF<sub>unerg</sub> + behar*

- a. Museo-EK *iraun-go dute*  
 museum-d.pE last-FUT AUX.3pE

<sup>21</sup> Goenaga (2006) seems to be the sole discussion of S.ABS<sub>i</sub> V<sub>unacc</sub> *behar* AUX.ERG<sub>i</sub> in contemporary Basque. Mounole (2010) documents the same case-agreement pattern with different properties for an extinct variety of the 18<sup>th</sup> century. It must be distinguished from restructuring INF + *behar* available to some speakers with both case and agreement determined by INF (Ortiz de Urbina 2003d: 304-6, Etxepare and Uribe-Etxebarria 2009: ex. 2.1, Mounole 2010). Our analysis is inspired by Goenaga's.

<sup>22</sup> In most examples that follow, the subject is an inanimate incapable of needing, and thus indicates raising.

<sup>23</sup> In central and western varieties, 3PL.ABS and 3PL.ERG are marked as *-ak*; the pattern in (32)-(33) can be reproduced in those dialects by using weak quantifiers like *zenbait hiri/hiri-k* 'some city.A (existential) / city-E (partitive)', as in ex. (39) below.

- Museums [in general] / The museums / \*Some museums will remain (endure).
- b. Museo-EK/\*AK      iraun    behar dute  
 museum-d.pE/d.pA   last    must AUX.3pE  
 ERG: Museums [in general] / The museums / \*Some museums must remain (endure).

Thus the absolutive case option for the subject of INF + *behar* only appears for the existential reading and only for (certain) unaccusatives. We will argue that the distribution of absolutive versus ergative in INF + *behar* matches that of low subject position in the English existential construction versus the high subject position in Spec,T. The framework through which we discuss these position-interpretation correlations is that of Diesing (1992), Diesing and Jelinek (1995), and Kratzer (1995), where DP positions interact with the scope of clausal operators. However, the consequences for the structural character of ergativity would be similar on other ways of linking readings with syntactic positions (e.g. Cohen and Erteschik-Schir 2002, Etxeberria 2009).

In the model we adopt, the clause is divided into three layers: an operator Op such as generic **Gen**; Op's restrictor above the vP, where Op binds free variables; and the vP as Op's nuclear scope, where free variables are bound by existential closure  $\exists X$ . Bare NPs and DPs whose D is 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) *Gen (many) professors are available*, they are bound by Op to give the presuppositional reading **GenX : professor(X) (and many(X))  $\rightarrow$  available(X)**. QR in (i) for the presuppositional reading is unavailable; reconstruction in (ii) is available if it is independently available in the language, within limits to which we return.<sup>24</sup> Ds like *many* have a second lexical entry as quantifiers, which leave the vP for type reasons. The quantificational interpretation leads to presuppositional and proportional readings of (iii), *Many professors are available* as **ManyX : professor(X)  $\rightarrow$  available(X)**. Quantifiers like *every* only have this quantificational reading. Definites are interpreted as  $\iota[[NP]]$  and leave the vP to escape discourse-new interpretation under existential closure.

With this background let us return to INF<sub>unacc</sub> + *behar* and the ergative-absolutive case alternation. We have seen that the absolutive is only available to unaccusatives and only for the existential reading; elsewhere the ergative is required. In the following examples, we go through DPs admitting existential readings with unaccusatives in INF + *behar*, and show that the distribution of absolutive and ergative correspond to that of English low (expletive associate) and high (raised) subject constructions, with corresponding readings predicted by the model. There is a caveat that we defer to the end of this subsection: the model makes available the existential reading for vP-external

<sup>24</sup> For the impossibility of QRing *there*-associates, different proposals exist (Heim 1987, Chierchia 1995, Bobaljik and Wurmbrand 2012). Some limits on reconstruction for the existential reading are better understood than others, for instance with individual-level predicates (Diesing 1992, Kratzer 1995, Chierchia 1995), less so *I can see that hunters/#fires are in the forest* or *You win if pieces remain/#are on the board* beside their *there*-counterparts, and examples below (cf. Francez 2009, McNally 2011; distinct is surface scope rigidity in languages like Yiddish, Diesing 1992, 1997, Bobaljik and Wurmbrand 2012).

subjects through reconstruction, yet we shall see that it is often absent both in English and Basque when corresponding constructions with vP-internal subjects are available.

Basque nominal arguments require a determiner, and we shall consider first the determiner *-a-*. (32) has introduced the correlation of ergative case on *-a-* plurals with high-position generic, kind and definite readings, and absolutive case with low-position existential readings. Examples (34)-(37) further illustrate these readings of *NP-a-in INF + behar*. (34) replicates (32)b for plurals when INF contains 'be' with a locative coda.<sup>25</sup> The ergative has the definite reading of English *the NP* and the generic reading of English bare plurals in the high-subject construction. The absolutive has the existential reading of English bare plurals in the expletive construction. The existential reading unlike the definite and generic ones asks for the preverbal focus position, but the absent readings do not become available by changing word order.

(34) *Basque: NP-a in 'be' + LOC + behar -a- plurals*

- a. Tabernetan, **pintxo-ek** mahai gainean egon behar dute.  
 in.the.taverns pitxo-d.pE table on.the.top be(LOC) must AUX.3pE  
 ERG: Generic or definite only: In taverns, pintxos/the pintxos must be on the table (for customers to consume them). [pintxo is a type of bar appetizer]
- b. **Pintxo (on-)ak** egon behar **dute** mahai gainean.  
 pintxo good-d.pA be(LOC) must AUX.3pE table on.the.top  
 ABS: Existential only: There must be (good) pintxos on the table (if people are to come).

(35) illustrates the limitation of absolutive case to the existential reading for mass nouns in *-a-*, like English bare mass nouns in the existential construction. The ergative *-a-k* 'd-sE' is not available at all, since the meaning of the subject does not support a generic statement about it, while an anaphoric one would need more context.

(35) *Basque: NP-a in 'be' + LOC + behar mass nouns: absolutive existential*

- a. Hemen **sagardo on-a** egon behar **du**.  
 here wine good-d.sA be(LOC) must AUX.3sE  
 ABS: Existential only: There must be good cider here.
- b. Udan, **sekulako usain-a** egon behar **du** hor.  
 in.the.summer huge smell-d.sA be(LOC) must AUX.3sE here  
 Existential only: In the summer, there must be huge smell there.

These examples involve a coda specifying the spatio-temporal location of the existential DP such as 'here' or 'in the summer'. (36) shows that pure existential assertion also takes absolutive case:

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

<sup>25</sup> The copula *egon* 'be(LOC)' corresponds to Spanish *estar* and is used with stage-level and locative predication in western dialects (Etxepare 2003a: 4.1.2.2.1, Zabala 2003).

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

There are two striking aspects to the foregoing examples. One is the availability of absolutive case in what is otherwise a raising-to-ergative construction and the fact that even here the agreement remains ergative. The other is the parallelism in the distribution of case in Basque and of subject position in English. The subject can be absolutive in Basque and expletive associate in English only under the existential reading (*In taverns, there must be pintxos on the table*), while the ergative subject in Basque and the high subject in English have only non-existential readings (*In taverns, pintxos must be on the table*).

The parallelism extends to individual-level predicates, (37), where both languages lack existential readings: in Basque the absolutive-subject construction is barred, in English the expletive existential construction is, and in both the ergative or high-subject alternative also lacks the existential reading:

(37) *Basque: NP-a in 'be' + individual level predicate adjective*

- a. **Pintxo-ek** on-ak izan behar **dute** Euskal Herrian.  
 pintxos-d.pE good-d.pA be must AUX.3pE Basque Country.the.in  
 Generic/definite only: Pintxos/The pintxos must be good in the Basque Country.
- b. **Ardo on-ak** garbi-a eta distiratsu-a izan behar **du**.  
 wine good-d.sE clear-d.sA and bright-d.sA be must AUX.3sE  
 Generic/Definite only: Good wine/The good wine must be clear and bright.

On the model we adopt, existential and generic/kind readings of plural and mass nouns arise because they are interpreted as NP(x) bound by existential closure when in the vP and by the generic quantifier when outside. We take NP(x) to be one translation of NP-a, derived by typeshifting from the basic interpretation of NP-a as definite tNP (Etxeberria 2005: 4.6.5.1, 2009, 2010). The existential reading is then obtained when NP-a stays in the vP and the other readings when it raises and does not reconstruct. The former is thus the configuration of the English existential expletive construction and the Basque absolutive-subject construction, the latter of the English raised/high-subject construction and the Basque ergative-subject construction.

Weak determiners like *many* fit the same picture. The absolutive can only have the existential reading. (38)a shows it in a pure existential assertion:

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

- a. Bozketa egiteko, organoa balioz eratzeko behar **adina kide** egon behar **dute**.

voting to.do organ-d.sA validity-with to.form need enough member.A be(LOC) must AUX.3pE  
 ABS, existential only: To vote, there must be as many members as needed to  
 legitimately form the organ.

(<https://www.euskadi.net/bopv2/datos/2009/04/0902252a.pdf>)

(38)b and (38)c have stage-level *egon* 'be' + a predicative coda; the absolutive can  
 only have the existential reading and thus prefers the preverbal focus position:

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

In the same structure, (38)d, the ergative denotes proportional quantification over a  
 presupposed restrictor:

- d. (Lehen aipatutako) **pintxo asko-k** hemen egon behar **dute**.  
 earlier mentioned pintxo many-E here be(LOC) must AUX.3pE  
 ERG, definite/partitive: The (aforementioned) many pintxos must be here; Many of  
 the (aforementioned) pintxos must be here.

This distribution of readings for weak quantifiers again reflects the vP-internal  
 reading for absolutives and the vP-external one for ergatives on the adopted model, and  
 corresponds to English expletive associates versus high subjects.

Some unaccusatives other than 'be' offer the same contrast in (39). In (39)a,  
 absolutive 'many' is existential or cardinal while ergative 'many' is a proportional  
 quantifier over a presupposed set (this example has speaker variation to which we return).

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

- a. Bihar, dudarik gabe, **ikasle asko/asko-k** etorri behar **dute**.  
 tomorrow, without a doubt student many.A/many-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.]

(cf. Goenaga 2006: 461; for RE only, for PA, ERG only with both readings)

Similarly, in (39)b, absolutive 'some' is existential, ergative 'some' partitive:



INF + *behar* for scope below *behar* and quantifiers in INF, as we have seen in 4.3.3 exx. (28)-(29). Again, however, when the ergative-absolutive alternation is available, namely for certain unaccusative subjects, the reconstruction of ergatives is blocked even for these other scopal interactions. Thus in (40), speakers who allow the alternation require absolutive *gutxi* 'few' to scope below 'must', 'It is necessary that a small number VP', and ergative *gutxi-k* above 'must', 'The number that must VP is small', while speakers who only permit the ergative have both readings for it.<sup>27</sup>

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

- a. **POLITIKARI GUTXI/GUTXI-K** etorri behar **dute**.  
 politicians few.A/few-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/GUTXI-K** etorri behar **dute** leizezuloa irekitzeko.  
 archaeologist few.A/few-E come must AUX.3pE to open the cave  
 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. In this subsection we have gone beyond the last where ergative raisees reconstructed into INF, to situations where they are absolutive in case despite ergative agreement, in the same contexts and with the same reading as the English existential expletive construction. We interpret this to mean that in the INF + *behar* raising structure, the subject may stay in the vP under the existential reading, get absolutive case, yet participate in remote agreement with the ergative locus T<sub>ERG</sub> brought by *behar*, analogously to the vP-internal subject remotely agreeing with T<sub>NOM</sub> in the English expletive construction. Alternatively, the subject may raise out of the vP and obtain other readings, and in Basque ergative case. The next subsection develops this proposal.<sup>28</sup>

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

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must have a Spec,T<sub>def</sub> for them, as in English, and as suggested by the hosting of temporal adverbs delimiting matrix time.

<sup>27</sup> We thank B. Laca for suggesting 'few'. Basque *gutxi* requires focus (Etxepare 2003b: 4.5.4.2).

<sup>28</sup> The English existential construction and Basque existential absolutes with raising *behar/must* do not always coincide, but the differences do not seem to jeopardize the parallelism. One mismatch occurs with (39)c, where English does not allow *\*What must there happen?*, although it is an unaccusative in a raising structure, cf. *What could there possibly have happened to upset her?* Three other examples fine in Basque but not in English are given in Goenaga (2006: 461); one has a weak definite that sometimes allow the existential construction in English (Poesio 1994), two others are fine in the existential construction of French with properties similar to that of English. Independent factors should explain these differences.

INF + *behar* is a raising structure with two subject positions: a low one with the existential reading and absolutive case, a high one with other readings and ergative case, both with ergative agreement. Here we discuss the structures underlying this position-case correlation, while the derivational mechanics is deferred to section 5.

We start out from the Agree/Case structure in (41) for simple clauses, taking up our conclusion that the ergative locus is T-related and the absolutive one is lower:

- (41) *Agree/Case structure of simple clauses*
- |                             |                  |                 |  |                     |
|-----------------------------|------------------|-----------------|--|---------------------|
| a. (EXPL/S <sub>ABS</sub> ) | T                | [ <sub>VP</sub> | v <sub>ABS</sub> ... (S <sub>ABS</sub> ) ...]              | (Unacc: S low/high) |
| b. A <sub>ERG</sub>         | T <sub>ERG</sub> | [ <sub>VP</sub> | t <sub>A</sub> v <sub>ABS</sub> ... O <sub>ABS</sub> ... ] | (Trans)             |

Our analysis of INF + *behar* is resumed in (42). INF is a vP with v<sub>ABS</sub>, while *behar* contributes T<sub>ERG</sub>, which always triggers ergative agreement, and optionally movement with ergative case assignment:

- (42) *Agree/Case structure of INF + behar*
- |                     |                  |  |  |        |                 |
|---------------------|------------------|--|--|--------|-----------------|
| a. EXPL             | T <sub>ERG</sub> | [[ (T <sub>def</sub> ) <sub>vP-INF</sub> | v <sub>ABS</sub> ... S <sub>ABS</sub> ... ]                | behar] | (Unacc: S low)  |
| b. S <sub>ERG</sub> | T <sub>ERG</sub> | [[ (T <sub>def</sub> ) <sub>vP-INF</sub> | v <sub>ABS</sub> ... t <sub>S</sub> ... ]                  | behar] | (Unacc: S high) |
| c. A <sub>ERG</sub> | T <sub>ERG</sub> | [[ (T <sub>def</sub> ) <sub>vP-INF</sub> | t <sub>A</sub> v <sub>ABS</sub> ... O <sub>ABS</sub> ... ] | behar] | (Trans)         |

In (42)a the unaccusative subject S stays in INF with absolutive case from v<sub>ABS</sub>, the existential reading, and embedded scope, while an expletive satisfies the EPP. In (42)b S raises to ergative case from T<sub>ERG</sub>, allowing other readings and matrix scope, but by reconstruction also the readings and scope of (42)a. In both cases, T<sub>ERG</sub> agrees with S. Save for the identity of the Agree/Case loci, the configurations, their interpretations, and their limitations are the same as for the English existential expletive vs. raised subject constructions. As in English, the existential expletive construction is limited to some unaccusatives: external arguments, (42)c, must raise to ergative case and agreement, with matrix or embedded scope by reconstruction, and in Basque moreover lack existential readings (for limitation of the existential expletive construction, see Alexiadou and Anagnostopoulou 2001, 2007, Chomsky 1995: 343, 2001: 29, 2007: 23, Deal 2009).

We will now examine the elements of the proposed structure, starting with INF. In 4.3, we have seen that INF is a thematically complete vP, but has no T or a defective T, where defective T lacks Agree/Case loci. As a vP, INF has the source of absolutivity for transitive objects, as we concluded in section 3.3 for vPs. In section 4.6 we shall see that INF and therefore its vP must also have the source of absolutivity for unaccusative subjects, since this absolutivity emerges in both case and agreement when Agree with the T<sub>ERG</sub> is blocked by an element at the periphery of INF. Thus the source of absolutivity for both transitive objects and unaccusative subjects is in the vP. We take it to be a single element and designate it v<sub>ABS</sub>, as shorthand for other options such as v<sub>ABS</sub>, v+V<sub>ABS</sub> (cf. Chomsky 2001, 2008 on accusative), or Asp<sub>ABS</sub> (Laka 2000). Further details depend on how the subjects of certain unergatives come to be absolutive, which might suggest

Asp<sub>ABS</sub> above the vP (Laka 2000), cyclic expansion of search-space by v<sub>ABS</sub> to Spec,v when no goal is found in v' (Rezac 2003), or multiple vP shells.<sup>29</sup>

The source of ergativity is brought by *behar*, since it is independent of the transitive, unergative or unaccusative nature of INF, unlike in simple clauses. *Behar* also brings temporal, negation, and focus structure, for which INF is deficient as seen in 4.3. We thus reach from INF + *behar* the same conclusion as in our study of ECM structures: ergativity and nondefective T-system coincide. We designate the locus of both as T<sub>ERG</sub>.

The subject of INF + *behar* always participates in ergative agreement, whether it is ergative or absolutive in case, thus whether it remains low or raises. Ergative agreement of T<sub>ERG</sub> thus behaves like nominative agreement of T<sub>NOM</sub> in English or in Icelandic (3): it occurs with subjects in both high and low positions. Thereby it fits the profile of Agree of Chomsky (2000): it finds its goal in its c-command domain and does not need movement. By contrast, ergative case in INF + *behar* does not behave like nominative, accusative and absolutive case. Icelandic nominative and accusative in (3) are assigned to the goal of Agree whether moved or in-situ. The same can be concluded of Basque absolutive case and agreement alike, since they occur with subjects of unaccusatives even in low positions, as in (32), and more clearly because they occur with the subjects of perception complement gerunds even when they remain in the gerund rather than raise into the matrix clause, as in (12)-(13) (see note 11). The ergative, on the other hand, can be seen in INF + *behar* to only appear on high-position subjects. We conclude from this that ergative case is assigned if and only if Agree with T<sub>ERG</sub> is accompanied by movement to Spec,T<sub>ERG</sub>. Section 5 proposes a mechanism for this 'marked' Case, and discusses how v<sub>ABS</sub> and T<sub>ERG</sub> interact in order to result in absolutive case + ergative agreement without movement versus ergative case and agreement under movement.

When raising-to-ergative does not occur in (42)a, we have posited an expletive EXPL to occupy Spec,T<sub>ERG</sub>, as in the English existential expletive construction. Basque has pro-drop, so expletives are invisible. Evidence has accumulated for ergative expletives in Basque analogous to English *it* in *It seems that S* and *It is not worth leaving* (Artiagoitia 2001ab, Etxepare 2003c: 175 note 4, Albizu and Fernández 2006: 82, Albizu 2007, Ortiz de Urbina 2003b: 4.7.1.2), but has been difficult to ensure that these are not quasi-expletives (see Chomsky 1986: 92 *be likely* versus *seem*, and for Basque, Artiagoitia 2001ab vs. Oyharçabal 1992). There is a distinct line of evidence for a true ergative expletive. Internal arguments in Basque bear the partitive case in contexts such as under negation, and instead of agreeing, 3SG appears (de Rijk 1972). When the subject of an unaccusative is partitive, (43)a, agreement is 3SG absolutive. However, when the unaccusative is in INF + *behar*, (43)b, agreement is 3SG ergative. Arguably, partitives do not control agreement, so 3SG.ABS/ERG comes from an expletive whose case matches or is assigned by v<sub>ABS</sub> and T<sub>ERG</sub> respectively.

(43) *Partitive + 3SG.ABS/ERG expletive*

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<sup>29</sup> Further support for putting v<sub>ABS</sub> in INF is that (modulo other factors) attributing v<sub>ABS</sub> to *behar* above INF would make INF + *behar* an ECM structure like gerund + perception verb in section 3, and as there, the external argument of INF below v<sub>ABS</sub> should be absolutive.

- a. Ez da           oztopo-rik        izan-go.  
not AUX.3sA obstacle-PART be-FUT  
There will be no obstacle.
- b. Ez luke                 oztopo-rik            izan    behar  
not AUX.HYP.3sE  obstacle-PART   be     must  
There must/should be no obstacle.

The hypothesis that INF + *behar* with absolutive-case subjects require an ergative expletive provides an interesting point of parametric variation. Such a marked-case expletive might be missing in the grammar of some speakers, who would then not allow INF + *behar* with absolutive case subjects at all, and always use ergative case for both readings. This prediction may be correct, although it demands further investigation.<sup>30</sup>

#### 4.6 ERG-ABS alternation by intervention

There is one context where the subject of INF + *behar* is absolutive in both case and agreement and this is independent of interpretation: when an unaccusative main verb has a dative argument (Ortiz de Urbina 2003d: 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<sub>ERG</sub>. We develop a version of this idea here. The phenomenon leads to an ergative-absolutive alternation dependent on a purely syntactic factor, without either scopal or thematic correlates. It also localizes the source of absolutivity in INF + *behar* within INF, below a dative at its periphery.

The phenomenon is illustrated in (44). 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, (44)a, save on the existential reading as discussed in 4.4. However, when the dative is present, S is absolutive for *both* case and agreement, independently of interpretation, (44)b. Other datives have the same effect, including experiencers, (44)c, and possessors, (44)d.

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<sup>30</sup> We have not specified how INF and *behar* come together in (42), in particular how the phi-features of v<sub>ABS</sub> in INF end up in the agreeing auxiliary with those of T<sub>ERG</sub> while *behar* remains a separate element. If INF is the complement of *behar*, we may posit movement of v<sub>ABS</sub> from INF to T<sub>ERG</sub> through *behar* by excorporation (Roberts 2010), or phi-feature sharing through the extended projection of a clause without movement (Zwart 1997: 6.2, Chomsky 2008: 143-4, 159 note 262). This issue does not arise if *behar* is rather predicated of INF. Etxepare and Uribe-Etxeberria (2012) analyse [INF *behar*] as a small clause parallel to (i), where *adiskideak* is just such a secondary predicate or predicate complement of *zuek*, and thus does not interfere in the agreement of v<sub>ABS</sub> with *zuek* and in v-raising or phi-transmission to the auxiliary. (See Goenaga 2006: 407f. for another *behar* construction of this type, and de Rijk 2008: 14.1 on this structure in Basque generally).

- (i) Ni-k       [<sub>sc</sub> zuek/*pro*           adiskide-ak] zaituztet.  
I-E           you(PL).A           friend-d.pA   have.2pA.1sE  
I have you as friends. (*for this structure without as, cf. We elected you our representative.*)

(44) *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-D 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-D more like must AUX.3pA.3sD / \*3sD.3pE  
Miren must like the poets more (The poets must please more to Miren).
- d. Bankari-ari orain erori behar zaizkio giltz-ak lurrera  
banker-d.sD now fall must AUX.3pA.3sD key-d.pA to.the.ground  
Now the banker's keys must fall to the ground (for the theft to succeed as desired,  
*lapurreta nahi bezala ateratzeko*).

It is clear that the case of S 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 S in simple clauses whose case does not depend on a dative's presence. The dative conditions the case of S syntactically.

The Basque ergative-absolutive alternation finds a striking parallel in a nominative-accusative one in Icelandic. The verb *gefa* 'give' in (44) may use either dative recipient > theme or theme > dative thematic structures, and the higher argument raises to become the subject of the passive (Holmberg and Platzack 1995, Collins and Thráinsson 1996, Jónsson 1996: 4.5.4, Anagnostopoulou 2003: 3.7.1, 3.7.3).

(45) *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 voru gefnir t<sub>i</sub> þessir sokkar. ~ Þessir sokkar<sub>i</sub> voru gefnir t<sub>i</sub> Jóni.  
Jon.DAT were given these socks.NOM

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

When the theme > dative passive is placed under an active ECM verb, (46)a, the theme subject regularly gets accusative, but when the dative > theme passive is, (46)b, the theme is nominative. This nominative only emerges when INF has a dative subject; with the dative absent in (46)c, the accusative reappears, in the same position as in (46)b (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: ECM of passive (+ dative)*

- a. Ég taldi **hestana<sub>i</sub>** hafa verið **gefna** Jóni t<sub>i</sub>.  
I believed the.horses.ACC to.have been given.ACC.PL Jon.DAT
- b. Ég taldi Jóni<sub>i</sub> hafa verið t<sub>i</sub> **gefnir** **hestarnir**

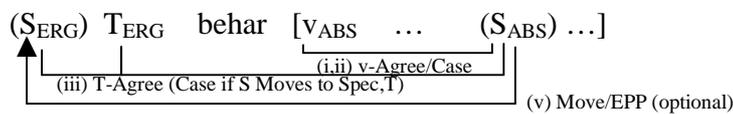
- I believed Jon.DAT to.have been given.NOM.PL horses.NOM  
 c. Ég taldi hafa verið gefna of marga hestana  
 I believed to.have been given.ACC.PL too many horses.ACC  
 ((a-b) Maling and Sprouse 1995: 180, (c) Hiraiwa 2005: 71)

This paradigm may be analysed as follows (Sigurðsson 2000, Frampton and Gutmann 1999, Rezac 2004, Nomura 2005). Agree between ECM  $v_{ACC}$  and its goal in (46)b is blocked across the dative as an intervener or as the subject of a phase, but not in (45)a where  $v$ , its goal, and the dative are in the same  $v$ -phase or minimal domain. The nominative that emerges in (46)b comes from  $T_{NOM}$  of the infinitive below the dative, which can assign nominative to objects in Icelandic.<sup>31</sup> This is the approach that we propose for Basque (44) as well. The account captures the parallelism of (44) and (46), both in the blocking of matrix ergative and accusative across a dative at the periphery of an infinitive, and in the consequent emergence of absolutive and nominative.

We begin with conclusions (i-iii) from 4.5, which give rise to the pattern of ergative or absolutive S with ergative agreement seen earlier, (47)a:

- (i) INF introduces  $v_{ABS}$  and *behar* introduces  $T_{ERG}$ , (47).
- (ii) Agree with  $v_{ABS}$  is responsible for absolutive case/agreement of S ( $vP$  in (47)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 (47)a)).

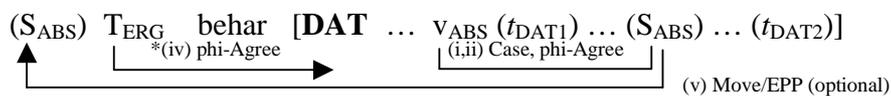
(47) a. *Derivations for  $INF_{unacc}$  + behar without dative intervener*



We now add (iv) for the intervention effect of datives, (47)b:

- (iv) In S + dative unaccusatives in INF + *behar*, (47)b, the dative intervenes and prevents Agree of  $T_{ERG}$  with S, but not of  $v_{ABS}$  with S.

(47) b. *Derivations for  $INF_{unacc}$  + behar with dative intervener*



<sup>31</sup> Exactly when and how is debated (see op.cit.). It is unlikely that the nominative in (46) is default or inherent, since it alternates between nominative and accusative and controls agreement on intervening participles, unlike inherent and default Case both (Rezac 2013: note 17, with literature).

(47)b presupposes an independent aspect of Basque ergativity, that the highest argument raises to the Spec,T EPP position to obtain subjecthood properties, even if it does not get case and agreement from T<sub>ERG</sub>. This occurs not only in (47)b, but also in plain unaccusatives (41)a where S relates to v<sub>ABS</sub> yet raises to Spec,T for subjecthood diagnostics (Laka 1993a, 2000, Bobaljik 1993, Rezac 2008b). The choice of T as the locus of all three of tense, ergativity, and EPP is inessential; we have seen reasons to link ergativity and tense-completeness, but the EPP is operative even in tense-defective clauses in English and Basque and might be the property of another head (Rezac in prep.).

We need to address in more detail the blocking effect of datives on T<sub>ERG</sub>-S Agree in (47)b. It can be viewed as intervention in Agree between S and T<sub>ERG</sub>, either by relativized minimality since the dative is closer to T<sub>ERG</sub> than S and none of the three are in the same minimal domain, or by phase opacity if 'high' datives create phases.<sup>32</sup> The literature on Basque datives establishes that within the vP, psych-experiencers are *high* datives above the unaccusative subject S at t<sub>DAT1</sub> in (47)b, possessors as well though perhaps raising to t<sub>DAT1</sub> from t<sub>DAT2</sub>, while goals of motion are *low* datives below S at t<sub>DAT2</sub>. This is based on c-command relations among the phrasal content of A-positions, (non)intervention for person Agree between v<sub>ABS</sub> and S, (non)obligatoriness of dative agreement, and interaction with control and causativization (Albizu 1997a, 2011, Etxepare and Oyharçabal 2012, forthc, Fernández and Ortiz de Urbina 2010, Fernández forthc, 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 DAT in (47)b doubling the vP-internal dative. The doubling clitic/D at DAT is what blocks Agree with T<sub>ERG</sub>, since the clitic intervenes without being in the equidistant domain of either the target or goal of Agree (unlike when clitic doubling voids intervention by making the intervener equidistant to the target, Anagnostopoulou 2003). 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 to evidence from morphology, dative-absolutive interactions, and locality (Rezac 2006, 2008a, Preminger 2009, Arregi and Nevins 2012, Etxepare 2006, 2012.).<sup>33</sup>

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<sup>32</sup> See Sigurðsson and Holmberg (2008) for relativized minimality and Nomura (2005), Bobaljik (2008) for phases applied to the Icelandic type (46). Either phases or minimal domains are suited to explaining how Agree is blocked across a dative at the edge of an infinitive, (46) in Icelandic and INF + *behar* in Basque, without being blocked when the probe, the dative, and goal are part of the same minimal vP/TP in Icelandic (45) (Sigurðsson and Holmberg 2008) and in Basque simple unaccusatives/transitives (Rezac 2008b; cf. for unaccusatives with T<sub>ERG</sub> Albizu and Fernández 2002: 81-3), although in that case the dative does interfere with person Agree (Anagnostopoulou 2003).

<sup>33</sup> Some dialects, which require low datives in unaccusatives to agree in monopredicate structures, permit them not to agree in INF + *behar* (Albizu and Fernández 2002, Ortiz de Urbina 2003c: 3.5.5). The dative is then not doubled by DAT and does not block Agree in (47). This option might simply involve the use of a smaller INF, without the functional architecture that doubles datives by DAT.

When DAT prevents S from Agree with T<sub>ERG</sub>, S is absolutive for agreement and case, while otherwise it has only ergative agreement. The emergence of absolutivity supports the hypothesis in 4.5 that INF in INF + *behar* has an absolutive Agree/Case locus for S. When S cannot Agree with T<sub>ERG</sub> because of the intervening DAT, S Agrees with an absolutive Agree/Case locus, which is therefore somewhere in INF below DAT -- our v<sub>ABS</sub>. In section 5 we discuss the interaction of v<sub>ABS</sub> and T<sub>ERG</sub> Agree in INF + *behar*.

Stepping back from our analysis to the nature of ergativity, Basque (44) and Icelandic (47) show a parallel alternation of S between regular ergative/accusative and absolutive/nominative due to an intervening dative, without an accompanying difference in thematic interpretation. Ergativity is therefore independent of thematic relations. The blocking of ergativity in INF + *behar* by DAT at the edge of INF and the consequent emergence of absolutivity supports an ergative locus outside INF, T<sub>ERG</sub>, and an absolutive locus in it, v<sub>ABS</sub>.

#### 4.7 Overview

In this section, we have shown that INF + *behar* is a raising structure similar to English raising modals, whose subject raises from INF to Spec,T<sub>ERG</sub> for ergative case and agreement, or stays in INF and Agrees with T<sub>ERG</sub> for ergative agreement alone. The following evidence has shown that the ergativity brought by *behar* is independent of the argumenthood (thematic) relations of the subject which belong solely to INF:

- Total reconstruction of ergatives into INF for thematic interpretation
- Reconstruction of ergatives into INF for scopal interpretation.
- Ergative-absolutive case alternation according to high versus low subject position.
- Ergative-absolutive case and agreement alternation due to dative intervention.

These arguments apply both to agreement and case. We have also found that while ergative agreement can occur at a distance, like nominative and accusative case and agreement, ergative case requires movement. We return to this in the next section.

### 5 **The theory of structural ergativity**

#### 5.1 The issue

Our results make the Basque ergative significantly parallel to the English or 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 and absent in defective TPs. However, the ergative also differs from the nominative, accusative and absolutive. The latter behave for both case and agreement as expected of Agree in Chomsky (2000 et seq.): their Agree/Case loci relate to DPs at a phrase-structural distance with or without movement. In Icelandic, the subjects of raising and ECM infinitives have nominative and accusative case (both overtly marked) even if they remain low in the infinitive, as in (3); in Basque, unaccusative subjects bear absolutive case (default  $\emptyset$ ) even when in the low

subject position in (32) and within complement gerunds under matrix ECM in (12)-(13); and they all control agreement. In contrast, in INF + *behar*, the subject is ergative in agreement whether high or low, but ergative in case only if it raises to Spec, T<sub>ERG</sub>, while absolutive if it remains in INF's vP (section 4.4). This is a new finding of our study, and we need to extend the theory of Agree/Merge to integrate it. We have also left undiscussed the interaction between v<sub>ABS</sub> and T<sub>ERG</sub> when there is a single goal for both, as in INF<sub>unacc</sub> + *behar*. To these tasks we turn in this section.

We have argued for the structure (48)a for the Basque Agree/Case system, parallel to (48)b for English and Icelandic, converging with one line of previous work on structural ergativity (Levin and Massam 1985, Bobaljik 1993, Laka 1993a, 2000, Rezac 2008b, 2011a: 5.5). Ergativity like nominative depends on the T-system, absolutivity like accusativity on the lower v/V-system. We attribute them to T<sub>ERG/NOM</sub> and v<sub>ABS/ACC</sub>, as cover-terms for other possibilities such as Fin<sub>ERG</sub> and Asp<sub>ABS</sub>. The T-system has the EPP requirement whose satisfaction confers subjecthood status.

(48) *Clausal Agree/Case loci*

- a. T<sub>ERG</sub> [EA v<sub>ABS</sub> [... O/S ...]] (structural ergative system, Basque)  
 b. T<sub>NOM</sub> [EA v<sub>ACC</sub> [... O/S ...]] (structural accusative system, Icelandic)

In simple constructions, this architecture works out as in (49)a-(49)b. In transitives, the subject Agrees with T<sub>ERG</sub> and raises to satisfy its EPP requirement, leading to ergative case and agreement and subjecthood properties, while the object Agrees with v<sub>ABS</sub> (for its movement, see Vicente 2005 and our note 11). In unaccusatives, there is no T<sub>ERG</sub> and only one argument, the subject: it Agrees with v<sub>ABS</sub> but raises to T to satisfy its EPP.

(49) *Agree/Case configurations*

- a. Transitive: [EA<sub>ERG</sub> T<sub>ERG=EA</sub> [t<sub>EA</sub> [v<sub>ABS=O</sub> O<sub>ABS</sub> ]]]  
 b. Unaccusative: [(S<sub>ABS</sub>) T [v<sub>ABS=S</sub> (S<sub>ABS</sub>) ]]  
 c. Raising-to-ERG, transitives: [EA<sub>ERG</sub> T<sub>ERG=EA</sub> [INF [t<sub>EA</sub> [v<sub>ABS=O</sub> O<sub>ABS</sub> ]]]  
 d. Raising-to-ERG, S moves: [S<sub>ERG</sub> T<sub>ERG=S</sub> [INF [v<sub>ABS</sub> t<sub>S</sub> ]]]  
 e. Raising-to-ERG, S in-situ: [ T<sub>ERG=S</sub> [INF [v<sub>ABS</sub> S<sub>ABS</sub> ]]]  
 f. Raising-to-ERG, intervention: [(S<sub>ABS</sub>) T<sub>ERG</sub> [INF D<sub>DAT</sub> [v<sub>ABS=S</sub> (S<sub>ABS</sub>)]]]  
 (=x indicates x controls overt agreement)

Transitive INF + *behar* constructions (49)c have the same mechanics as other transitives, save that the vP is in INF while T<sub>ERG</sub> is brought by *behar*: the external argument must raise to the T-system rather than remaining in the vP (see 4.5). The special character of ergative case and the emergence of absolutive case with ergative agreement are revealed in unaccusative INF<sub>unacc</sub> + *behar* configurations (49)d-(49)f. Here agreement but not case behaves as expected of Agree:

In INF<sub>unacc</sub> + *behar*, the subject has:

- (i) Ergative agreement and case if it *both* Agrees with T<sub>ERG</sub> *and* raises out of INF, (49)d.

- (ii) Ergative agreement but absolutive case if it Agrees with  $T_{\text{ERG}}$  *but* remains in unaccusative INF, (49)e.
- (iii) Absolutive agreement and case if it Agrees with  $v_{\text{ABS}}$  in unaccusative INF because Agree with  $T_{\text{ERG}}$  is blocked, *whether* it stays in INF *or* raises out of INF, (49)f.

There are two challenges here. One is to have ergative case appear only in scenario (i), when the subject S of  $\text{INF}_{\text{unacc}}$  both Agrees with  $T_{\text{ERG}}$  (unlike in (iii)) and raises to  $\text{Spec}, T_{\text{ERG}}$  (unlike in (ii)). This suggests a marked status for the ergative case with respect to absolutive, nominative, and accusative, which only need Agree. The other is to have absolutive case emerge in (ii) despite ergative agreement, indicating a relationship to both ergative and absolutive Agree/Case loci. We take up these challenges in turn.

## 5.2 Marked and unmarked Case

We approach the contrast between ergative and absolutive case through the hypothesis that the case of non-ergative DPs (50)a reflects the valuation of [ $u\text{Case}$ ] by Agree (Chomsky 2000 et seq., Pesetsky and Torrego 2007), while the case of ergative DPs (50)b reflects an extra layer of structure, a KP above the DP, that needs to be licensed by movement or the resulting configuration (cf. Bittner and Hale 1996b):

(50) Structural Case on goal

- a. [ $u\text{Case}$ ] on  $\text{DP}_{\text{NOM/ACC/ABS}}$  valued by Agree with  $T_{\text{NOM}}, v_{\text{ACC}}, v_{\text{ABS}}$
- b. Ergative case configuration:  $[[K_{\text{ERG}} \text{DP}_i] [\text{Spec}, T_{\text{ERG}=i} \dots t_i \dots]]$

This markedness of ergative case does not simply reflect its use of the overt suffix *-k* against the absolutive's  $\emptyset$ , since in Icelandic nominative and accusative both use overt suffixes yet are available to goals whether in-situ or raised, (3). We need to understand how the ergative K in (i) is licensed by movement or the spec-head configuration that it creates, and how ergatively-agreeing DPs surface with absolutive case otherwise in (ii).<sup>34</sup>

As a first step, we need to ascertain the Case nature of the absolutive. Absolutive case uses default morphology: its exponent is  $\emptyset$  and it appears on DPs in Schütze's (2001) Default Case contexts, including vocatives, hanging topics, predicate nominals, and CPs in Caseless positions (Albizu 2007b). However, argumental DPs still need to relate to an Agree/Case locus to satisfy the Case Filter. In finite clauses where agreement is overt, they must control agreement, even where that leads to ungrammaticality due to agreement restrictions (Rezac 2009). When an Agree/Case locus is unavailable, absolutives are ruled out. This is shown in (51): here the experiencer takes up Agree with  $v_{\text{ABS}}$  of the unaccusative, and as a consequence the lower propositional argument cannot be

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<sup>34</sup> The status of the ergative as a 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 remains to be fully understood (Albizu 2008). See Davies and Dubinsky (2010) for a recent re-evaluation of comparable Case Resistance phenomena in English.

expressed by a DP even with  $\emptyset$  case, though it can appear as a Caseless CP or an oblique DP.<sup>35</sup>

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

- a. Beldur naiz {etorri-ko dela / \*etor-tze-a / \*etorrera / \*hori}.  
 afraid AUX.1sA come.FUT AUX.3sA-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.

In INF + *behar* (ii) and (iii), absolutive case conforms to this conclusion: it is only available to the S of unaccusatives, which independently have a source of absolutivity. We thus conclude that absolutive case on arguments does reflect a syntactic dependency licensing the argument for the Case Filter. In the framework we adopt, Agree by  $v_{ABS}$  values [ $u\phi$ i] on  $v_{ABS}$  and [ $uCase$ ] on the goal DP.

Now that we know that absolutive case reflects Agree for [ $uCase$ ] valuation, we need to understand how ergative case differs. One way to approach their difference is to modify the theory of syntactic Agree/Merge relations of Chomsky (2000 et seq.) to create ergative KPs (50)b by movement in (i) and let absolutive DPs emerge otherwise in (ii). A syntactic approach is supported insofar as the configurations involved are those of syntax, specifically movement for ergative case and Agree for absolutive case. We shall sketch its elements here: the licensing of KPs under movement and the interaction of different heads in multiple Agree with the same goal (see further Rezac 2012).

Agreement morphology realizes the valuation by Agree of [ $u\phi$ i] on the Agree/Case loci  $T_{ERG}$ ,  $T_{NOM}$ ,  $v_{ABS}$ ,  $v_{ACC}$  from the goal DP. Case morphology realizes the valuation by Agree of [ $uCase$ ] on the goal DP according to locus, nominative for  $T_{NOM}$ , accusative, and absolutive for  $v_{ABS}$ ,  $ACC$ . Ergative case, however, is licensed only if a DP is in Spec, $T_{ERG}$  and if  $T_{ERG}$  Agrees with it. Together, these conditions define the *movement* of the DP to  $T_{ERG}$ , since movement is precisely Agree with a goal plus re-Merge of that goal with the locus of Agree. Under the hypothesis that ergative case reflects  $K_{ERG}$  in (i),  $K_{ERG}$  is added to a DP by Agree( $T_{ERG}, DP$ ) + Merge(DP, [ $T_{ERG}$  ...]). Generalizing, Merge of  $\alpha$  to a probe/selector  $\beta$  can add structure to  $\alpha$  determined by  $\beta$ , in contrast to Agree alone that only modifies the features of  $\alpha$  and  $\beta$ . The mechanism does not single out  $T_{ERG}$ , and might be in principle applicable to other Agree/Case loci. Here we do not develop this proposal further, but advert to literature on raising-to-oblique and similar phenomena, which converges on the need for such a mechanism or sets out alternatives (McCloskey 1983, Stowell 1989, Runner 2006: 4.4, Pesetsky 2010, Rezac 2011a: 215, 2012; Mahajan 1996; Kayne 2004).<sup>36</sup>

<sup>35</sup> See Pesetsky (1982), and for Case Filter effects, Bošković (2002), Baker and Vinokurova (2010), Rezac (2013) and the literature there; cf. Duguine (2010). Basque nominalizations like *izan-a* in (51) do not need Case for some speakers (see also de Rijk 2008: 827).

<sup>36</sup> A more orthodox syntax for (ii) would have simple  $T_{ERG}$  Agree, valuing  $T_{ERG}$ 's [ $u\phi$ i] and the goal's [ $uCase$ ], and posit that the realization of Case at PF depends on position: ergative KP in Spec, $T_{ERG}$  of  $T_{ERG}$

### 5.3 Multiple Agree by v and T

When S does not raise to Spec, T<sub>ERG</sub> in INF<sub>unacc</sub> + *behar*, it is absolutive in case and agreement in (iii) but only in case in (ii). (iii) is straightforward: Agree with matrix T<sub>ERG</sub> is blocked, so v<sub>ABS</sub> Agrees alone, and the ensuing valuation of [*u*phi] on v<sub>ABS</sub> and [*u*Case] on its DP goal is realized as in plain unaccusatives. In (ii) however, S in INF has absolutive case yet controls ergative but not absolutive agreement. The case comes from v<sub>ABS</sub>, since it is only licensed in unaccusative INFs, indicating Agree of S with v<sub>ABS</sub>. Yet no phi-agreement with v<sub>ABS</sub> is realized. Instead, phi-agreement with T<sub>ERG</sub> appears, indicating a second Agree of S, with T<sub>ERG</sub>. There is good independent evidence that such multiple Agree with a single goal occurs, and that realization of the resulting duplex phi-features is simplified to a single value when both would surface on a single auxiliary.

Multiple Agree of this sort is clear in a remarkable parallel to INF<sub>unacc</sub> + *behar* (ii) which involves a finite clause rather than INF. It may be introduced by its English counterpart (52)a: matrix *seem* agrees with a nominative that has its own case and agreement in a lower finite clause, beside an alternative with copy-raising (Potsdam and Runner 2001, Rezac 2011b). The Basque construction is in (52)b. Matrix *seem* shows ergative agreement with a DP with its own absolutive case and agreement in a lower finite clause (Rezac 2011a: 216), beside a copy-raising alternative (Artiagoitia 2001ab).

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

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

(*cf. copy-raising* **Three books<sub>i</sub> seem like they<sub>i</sub> are** on the table)

[NOM Agree with 3PL NOM across finite clause]

b. [**Kontu asko** 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<sub>i</sub> 'matters-d.pE'** [*e<sub>i</sub>* hobetzen ari **dir-ela**] ematen **dute**.)

[ERG Agree with 3PL ABS across finite clause]

(52)b is striking independent evidence against any association of ergative agreement and argumenthood. The upstairs agreement cannot reflect an upstairs argument *pro<sub>i</sub>*, since

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that agrees with it, default (absolutive) in the domain of v<sub>ABS</sub>. Two important issues arise. One is that the conditions on the realization of case restate those that define movement, Agree + Merge, whereas arguments for the morphological determination of case and/or agreement start from their mismatches with syntax (Marantz 2000 generally, Deal 2010 for Nez Perce ergative case but not agreement). The second is the power of the PF component needed: the information to which case realization must refer would not be phrase-structurally local, since ergative KPs can be A'-moved away from the Spec, T<sub>ERG</sub> where they are licensed, nor overt, since ergative case occurs even when agreement with T<sub>ERG</sub> is systematically not spelled out in nonfinite clauses. It remains under discussion whether spell-out accesses and affects sufficiently syntax-like structures to achieve this outcome (Bonet 1991, Marantz 2000, Nunes 1999, Bobaljik and Branigan 2006, Rezac 2011a: chapter 2). A decisive argument for a syntactic approach would be different syntactic behavior of ergative and absolutive (Rezac 2011a: chapter 3 for other systems). In Basque they mostly have the same properties, with hints of differences (Etxeberria and Etxepare 2012 and references).

this would incur Condition C with the embedded subject *kontu asko*<sub>i</sub>, as in *There/\*They<sub>i</sub> seem to be many people<sub>i</sub> here* (Chomsky 1981). Rather, the upstairs agreement must reflect pure Agree by the upstairs ergative locus with the absolutive of the lower finite clause, to which it necessarily has no thematic relationship.

The parallelism between (52)b and INF + *behar* (ii)/(49)e is close: in both, ergative agreement occurs with a subject that remains in an embedded clause and participates in the absolutive Agree/Case relationship there, beside an alternative structure where it (copy-)raises into the upstairs clause as ergative. The literature on similar cross-clausal agreement cross-linguistically makes several proposals that allow the Agree of multiple Agree/Case loci with a single goal here, and yet exclude it in simple structures. Perhaps most simply, such multiple Agree can be permitted freely, and excluded when not wanted by the distribution of Agree/Case loci, such as absence of T<sub>ERG</sub> with simple unaccusatives in (49)b in contrast to INF + *behar* (49)d/(49)e, and by barriers to Agree, such as opacity of certain clausal complements with 3SG C (Rezac 2011b) or as phases (Etxepare 2012). However, other proposals can also be adapted to our purpose, including matrix Agree through the Agree-valued features of the embedded CP/INF (Legate 2005, Rezac 2004: 3.6, Etxepare 2006, Preminger 2009) or an extra feature on the embedded DP (Branigan and MacKenzie 2002, Bruening 2001: 5.5.5; cf. Carstens 2003).

Unlike (52), (ii) has only a single auxiliary carrying the phi-agreement of both matrix T<sub>ERG</sub> and embedded v<sub>ABS</sub>, and only the former is realized. Cross-linguistically multiple Agree with a single goal is typically realized only once per agreement complex, suppressing the expression of all but one of the probes in it (Carstens 2003: 407f.; see for a Basque situation similar to (ii) Rezac 2008b: 85).<sup>37</sup>

Thus the theoretical postulates needed for (ii), multiple Agree and its simplex realization are independently grounded. We can now resume the derivation of the subject S of INF<sub>unacc</sub> + *behar* as (i-iii):

- (i) S Agrees with T<sub>ERG</sub> (ERG agreement), moves to Spec,T<sub>ERG</sub> (ERG case as KP<sub>ERG</sub>).  
See below on v<sub>ABS</sub>.
- (ii) S Agrees with v<sub>ABS</sub> (ABS case; ABS agreement does not surface).  
S Agrees with T<sub>ERG</sub> without moving (ERG agreement; no movement for ERG case).  
Spec,T occupied by an expletive.
- (iii) S Agrees with v<sub>ABS</sub> (absolutive agreement and case).  
Agree with T<sub>ERG</sub> is blocked.  
S may but need not move to satisfy the EPP of T (or Fin, etc.).

In (i), we have left it open whether S Agrees with v<sub>ABS</sub>. The theory permits it: no absolutive agreement would surface, as in (ii), and absolutive case would not be observable within ergative KP<sub>ERG</sub> both because it is -∅- and because of case-stacking (Richards 2007, Pesetsky 2010). However, (i) is the sole context in Basque where v<sub>ABS</sub> is present yet not required to Agree to Case-license some DP, since T<sub>ERG</sub> does so. Thus an

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<sup>37</sup> An alternative could be developed where valuation is optional provided it occur once per goal.

alternative is that  $v_{ABS}$  need only Agree optionally, and everywhere but in (ii) it must do so since otherwise a DP would fail to be Case-licensed.

#### 5.4 Parametrizing alignment

In the Agree/Case structures we propose for Basque,  $INF_{unacc} + behar$  is unique in having two Agree/Case loci for a single goal, the S of INF. In all other structures, we have posited one locus per goal (raising to ergative 'seem' (52)b is like INF + *behar*):

(41) *Agree/Case structure of simple clauses*

- a. (EXP/S<sub>ABS</sub>) T [v<sub>P</sub> v<sub>ABS</sub> ... (S<sub>ABS</sub>) ...] (Unacc: S low/high)  
 b. EA<sub>ERG</sub> T<sub>ERG</sub> [v<sub>P</sub> t<sub>EA</sub> v<sub>ABS</sub> ... O<sub>ABS</sub> ...] (Trans)

(42) *Agree/Case structure of INF + behar*

- a. (EXP) T<sub>ERG</sub> [[v<sub>P</sub>-INF v<sub>ABS</sub> ... S<sub>ABS</sub> ... ] behar] (Unacc: S low)  
 b. S<sub>ERG</sub> T<sub>ERG</sub> [[v<sub>P</sub>-INF v<sub>ABS</sub> ... t<sub>S</sub> ... ] behar] (Unacc: S high)  
 c. EA<sub>ERG</sub> T<sub>ERG</sub> [[v<sub>P</sub>-INF t<sub>EA</sub> v<sub>ABS</sub> ... O<sub>ABS</sub> ... ] behar] (Trans)

This distinctive character of  $INF_{unacc} + behar$  is the distinctive character of raising to ergative. In an ergatively-aligned system, T<sub>ERG</sub> usually combines only with transitive v<sub>P</sub>s. The exceptional character of raising to ergative comes down to T<sub>ERG</sub> combining with [[(...) v<sub>P</sub><sub>unacc</sub>]<sub>INF</sub> *behar*] where INF is transparent to Agree, thus letting T<sub>ERG</sub> relate to the S of unaccusatives. This is a lexical property of the *behar* construction, and of any other (copy-)raising-to-ergative verbs like *eman* 'seem' in (52)b (Artiagoitia 2001ab), as well as of any ergative-subject unaccusatives if these exist (see note 5).

Such constructionally or lexically governed exceptions to ergative alignment have been viewed as evidence for the inherent status of ergativity (Oyharçabal 1992, Mahajan 2012). Since the coding of an argument can be affected by the lexical properties of its predicate through c-selection, as in *think about* vs. *reflect on*, the lexical properties of a given V might affect the coding of its external argument in Spec,(v+)V.

However, constructionally or lexically governed distribution of case/agreement also occurs with clear structural Case. In an ergative system, ergative-only unaccusatives are an island of nominativity, grouping S and A. In an accusative system, the equivalent is unaccusatives or passives with accusative but no nominative. These exist. They occur with particular voice heads, such as accusative-subject *no/to* passives in Ukrainian (Maling and Sigurjónsdóttir 2002, Lavine 2005) and the new passive in Icelandic (Tháinsson 2007: 5.1.4, Eypórsson 2008, Jónsson 2009, Sigurðsson 2011, partly reanalysing Maling and Sigurjónsdóttir 2002), but they may also be subject to idiosyncratic lexical exceptions, as with Icelandic fate unaccusatives (Schäfer 2008: 7.4, Sigurðsson 2011, 2012) and Russian adversity impersonals (if these belong here, see Szucsich 2007, Lavine and Franks 2008). In these cases, arbitrary Vs govern whether v<sub>ACC</sub> can relate to unaccusative S, just as *behar* does so for T<sub>ERG</sub>.

The appropriate mechanism to implement the sensitivity of T<sub>ERG</sub>/v<sub>ABS</sub> to lexical items depends on the general theory of the parametrization of structural Agree/Case systems,

which we do not develop here (for Basque-type of structural, T-locus ergativity, see a.o. Levin and Massam 1985, Bobaljik 1993, Laka 1993a, 2000, Rezac 2011a: 5.5; Ortiz de Urbina 1989, Albizu and Fernández 2006). C-selection might prove the right tool, in light of the microparametrizability of alignment according to the type of *v* and the lexical identity of *V*. If *T* can c-select for particular *v*(+*V*) as head of its complement, Basque  $T_{\text{ERG}}$  could select for agentive *v*, while excluding the agentive *v* of certain unergatives and including [INF *behar*] (cf. Albizu and Fernández 2006, Preminger 2012 for c-selection to parametrize Basque ergativity).<sup>38</sup> Similarly, accusative-*S* unaccusatives would result from c-selection between  $v_{\text{ACC}}$  and particular *Vs* (cf. Sigurðsson 2011, 2012 on Icelandic). Alternatives can be devised on other approaches to parametrizing Agree/Case systems, but do seem to resort to c-selection at some point.<sup>39</sup>

## 6 Types of ergativity

We have investigated the hypothesis that ergativity always depends on the argumenthood relation(s) of its bearer.

(2) *Inherent Ergative Hypothesis* (IEH): Ergative case/agreement always reflects inherent Case: it depends on the relationship(s) between an argument and its predicate.

In Basque, the core differences between inherent and structural Case show that neither ergative case nor agreement depend on the argument-predicate relationship:

- (A) ECM: Ergative case/agreement disappear in nonfinite structures with defective *T* but full *vP*, and otherwise ergative external arguments are there absolutive under ECM.
- (B) Raising: Ergative case/agreement appear in INF + *behar* 'must' on the subject of intransitive INF that would otherwise be absolutive.

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<sup>38</sup>  $T_{\text{ERG}-v_{\text{Ag}}}$  selection challenges the locality of selection under sisterhood if there are intervening categories. This is a known issue of the "cartographic" research program that posits them, such as Force-Fin/I selection across Top, Foc, Int in Rizzi (1997: 283-5). Proposals have suggested retaining the basic C-T-v system as far as selection is concerned, for instance by viewing its expansion as reprojection of C, T, v for different features (Shlonsky 2006, 2010: 427, Chomsky 2008: 148; differently Boeckx 2008: 157).

<sup>39</sup> Much work on structural ergativity proposes that accusative and ergative instantiate *dependent Case* that depends directly or indirectly on the assignment of nominative and absolutive (Levin and Massam 1985, Marantz 2000, Laka 1993a, 2000, Bittner and Hale 1996ab, Rezac 2011a: 5.5). One way to integrate accusative/ergative unaccusatives is to make them transitive for Agree/Case through expletive *pro* that bears nominative/absolutive; see Bittner and Hale (1996b: 35ff.) and Laka (1993a, 2000) for this device, and particularly Szucsich (2007) for Russian adversity impersonals and Haider (2001), Wurmbrand (2006), Schafer (2008: 7.4) for Icelandic fate unaccusatives. For INF + *behar*, the starting point would be the nominal character of *behar* or of INF, which would allow the postulation of matrix  $v_{\text{ABS}}$  that Agrees with them, leaving  $T_{\text{ERG}}$  to Agree with the subject of INF (Rezac 2011a: 223 note 32). This would recapitulate the origin of modal *behar*, originally *have* [need INF] or *have* [INF (as) need], reanalysed with *behar* as verb due to the identity of lexical *have/be* with +ERG/-ERG auxiliaries (cf. Mounole 2010, Goenaga 2006), yielding a class of 'compound verbs' whose main element has lost its nominal properties but assumed only some verbal ones, such as compatibility with the future suffix *-ko* but not gerund *-tze-* (De Rijk 2008: chapter 14, Hualde, Oyharcabal and Ortiz de Urbina 2003: 3.5.4; Etxepare and Uribe-Etxebarria 2012).

- (C) Subjects of  $INF_{unacc} + behar$  alternate between ergative case upon raising and absolutive case in INF, with ergative agreement in both configurations.
- (D) Subjects of  $INF_{unacc} + behar$  alternate between ergative and absolutive case/agreement according to whether a dative intervenes between them and *behar*.

There is other evidence for divorcing ergativity and argumenthood in Basque, including cross-clausal ergative agreement introduced in (52), absolutive-ergative alternations conditioned by person restrictions (Rezac 2008b), and ergative-absolutive alternations of external arguments under detransitivizations (q.v. Albizu 2001b, Etxepare and Uribe-Etxebarria 2012: 5.2). Nor does Basque seem unique in having ergative-absolutive alternations not conditioned by thematic interpretation (Bobaljik and Branigan 2006 for Chukchi, Holmberg and Odden for 2004 for Hawrami, Rezac 2011 for Chinook). 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.

We have not focused on absolutive case and agreement, for it seems uncontroversial that they are structural. For Basque, this is clear from the absolutivity of transitive subjects under ECM (3.3), ergative-absolutive alternations in raising structures (4.4, 4.6), and perhaps raising-to-absolutive on the raising analysis of *izan*, *egon* 'be' and *iruditu* 'seem' generally (Artiagoitia 2001ab, Zabala 2003, see note 16).

The structural Case character of Basque ergative and absolutive means that the alignment of its case and agreement is not attributable to inherent ergativity. This holds across the split-S aligned dialects on which we have focused and more ergatively aligned dialects that we have discussed more briefly. Split-S alignment should lend itself most transparently to the association of ergativity and external argumenthood, since the external argument of both transitives and unergatives is ergative (cf. Woolford 1997: 190-1, Legate 2008: 58-9, with references, and passim for their inherent-ergative treatment of split-S systems like Georgian). The IEH would permit reducing this alignment to the structural Agree/Case system underlying simple accusative alignment plus inherent Case as resumed in (i-iii) (see esp. Woolford 1997: 181-2, 198, 222-3 for the reduction, and for the mechanics Woolford 1997, 2006 and Nash 1995 for (ii), Legate 2008 for (ii) + (iii), and Woolford 1997: 190-1, Legate 2008: 58-9 for extension to ergative alignment).

- (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, the nominative-accusative pattern obtains.
- (ii) In one type of the ergative-absolutive (=nominative) pattern, the EA of agentive  $v$  in general, or of agentive  $v$  with [Case], 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.

The inherent character of the ergative, also derives the association of ergativity with argumenthood characteristic of many ergative systems, such as the unavailability of raising to ergative. Basque shows this reduction to be untenable: it must be possible to

parametrize the structural Agree/Case system in such a way as to create split-S alignments of case and agreement.<sup>40</sup>

This result is orthogonal to other aspects of our analysis, particularly to theoretical choices for viewing the relationship between alignment systems. These include ABS=NOM<sub>T</sub>~ACC<sub>v</sub> (Woolford 1997, 2006, Legate 2008); ABS=NOM<sub>T</sub>~ACC<sub>v</sub> or default and ERG=NOM<sub>T</sub> (Ortiz de Urbina 1989, Albizu and Fernández 2006); ABS=ACC<sub>v</sub> and ERG=NOM<sub>T</sub> (Levin and Massam 1985, Bobaljik 1993, Laka 1993a, 2000); NOM=ABS<sub>T</sub> while ERG is special (Bobaljik and Branigan 2006, Bittner and Hale 1996ab).<sup>41</sup> For Basque, we have adopted the view that ABS<sub>v</sub>=ACC<sub>v</sub>, in part because ABS for both unaccusative subjects and direct objects is available in raising infinitives whose T-system is defective, and such defectiveness eliminates NOM<sub>T</sub> in English and ERG<sub>T</sub> in Basque. However, were defective T to license the absolutive of unaccusative subjects, nothing in the argument against the inherent character of the ergative would change. Similarly, we have attributed Basque ERG to the T-system like NOM, but the argument against it being inherent is compatible with a different head or a different mechanism for ergativity.

Thus Basque leads us to conclude that there exist both ergative-absolutive and nominative-accusative alignments of structural Agree/Case, so that this system must be susceptible to parametrization to produce them (Levin and Massam 1985, Murasugi 1992, Bobaljik 1993, Laka 1993a, 2000, Bittner and Hale 1996b, Albizu and Fernández 2006, Rezac 2011a: 5.5). We have not explored the theory of such parametrization in depth, only noting the c-selection of Agree/Case loci as one tool. It has the power to limit T<sub>ERG</sub> to transitives in ergatively aligned systems yet add exceptions, and similarly in accusatively aligned systems. Other devices such as the distribution of silent Case competitors in Bittner and Hale (1996ab), Laka (2000) also seem viable.

The structural character of Basque ergativity does not belie the existence of inherent ergativity, only the reducibility of ergative and split-S case and agreement alignments to it. Theoretically, systems (ii) and (iii) above are unobjectionable. Empirically, some ergative systems conform to their expectations in contrast to Basque: the association of ergativity with theta-roles (Massam 2006 on Nieuuan), the absence of raising to ergative (Marantz 2000 generally), the retention of ergative in reduced clauses (Daniel, Maisak and Merdanova 2012 on Agul), other homologies between ergative and known inherent Case (Anand and Nevins 2006 on non-reconstruction in Hindi). Our analysis has also

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<sup>40</sup> Woolford (1997) explicitly argues that Case Theory provides for no structural ergative and no ergative-accusative parametrization; see in particular Woolford (1997: 181-2, 198, 222-3). Legate (2006: 171 note 26) leaves open the possibility that there might be split-S systems where S=A Case (nominative alignment) reflects nominative/T-Case rather than inherent ergative and S=O Case (ergative alignment) reflects accusative/v-Case assigned without T-Case, as on the analysis we advance in section 5 (we thank a reviewer for pointing this out to us). However, this seems problematic for the argument of Legate (2008: 58, 90, 2012: 182-7) that the inherent character of the ergative derives Marantz's generalization that derived subjects universally cannot be ergative. The argument requires a characterization of the ergative independent of the argued-for claim that it is inherent, and this characterization must encompass split-S/aspect systems like those of Georgian adduced as an example.

<sup>41</sup> For Bobaljik and Branigan ERG is distinctive by resulting from multiple Agree; for Bittner and Hale ERG and ACC are both dependent Cases but differ in the configurations and competitors that license them.

brought out an unmarked-marked distinction among structural Cases, with marked Case being more restricted and by hypothesis more structurally complex in the way PPs are (section 5; cf. Rezac 2008a, Markman and Grashchenkov 2012). The nature of many systems is not easy to ascertain (see for Hindi the different conclusions reached by Davison 2004, 2006, 2008, Ura 2000, 2006, Anand and Nevins 2006, Mahajan 2012 on the basis of sensitivity to aspect and lexical exceptions, reconstruction, and ECM).

The heterogeneous character of ergativity ties in with the historical transformations of its character, where transition appear from inherent to structural ergativity, but also hints of other sources of ergativity than inherent case. Emergence of ergativity 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 is a passive/resultative construction with nominative subject and inherent oblique or PP agent/instrument. The later was reanalysed as subject, giving the type of ergativity found in Hindi: the perfective has overtly case-marked A invisible to agreement and bare O and S, while the imperfective has a bare agreeing A, as do a handful of lexical exceptions in the perfective. In related languages, A transitions to a more structural case (Deo and Sharma 2004; Korn 2009). In Gujarati, A remains ergative in case and does not agree, but it interferes in person agreement of O like the dative subjects of Icelandic (Bhatt 2006: 801, Rezac 2008: 118f.; cf. Doron and Khan 2010 on Neo-Aramaic). In Nepali, the A 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, the ergativity of the A has disappeared. Neo-Aramaic presents a similar cline of ergativity. Yet not in all systems does ergativity come from inherent obliques/PPs. For Basque, current research proposes an animacy marker as the source of the ergative case (Lakarra 2005: 443f., cf. Martínez 2009; cf. Georgian ergative from demonstrative, Kulikov 2009: 447).<sup>42</sup> If so, the Basque ergative would not have had to tread the path from inherent Case and need never have shown any trace of inherent behavior. Other sources of alignment underlie subsystems within these systems and influence the nature of their ergativity, such as reanalysis of complex constructions underlying Basque raising-to-ergative (note 39).

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<sup>42</sup> We are grateful to J. Manterola for bringing this work to our attention.

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