Split intransitivity in Basque

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ABSTRACT　The split intransitive case system of Basque has been a topic of some interest in the literature; this article identifies the semantic basis of this pattern and also other split intransitive patterns in the language. It is shown that split intransitivity in Basque presents further support for Sorace's (2000) Auxiliary Selection Hierarchy. However, it is also shown that different split intransitivity diagnostics identified different classes of verbs, and that this creates difficulties for the traditional Unaccusative Hypothesis (Perlmutter 1978); an alternative account based in a more refined understanding of syntactic argument structure is sketched (cf. Baker 2017, Baker 2018).

1 INTRODUCTION

This article contributes to the discussion of 'split intransitivity': phenomena whereby certain intransitive or monovalent predicates are observed to allow particular morphosyntactic behaviours where others are not. Specifically, its purpose is to provide a descriptive account of various 'split intransitive' patterns in Basque. The best-known manifestation of this type of pattern in the language comes in its system of case, agreement and auxiliary selection. Consider the examples in (1), both exemplifying monovalent verbs. In (1a), the argument of the verb occurs with the ergative case ending *-k*, whereas in (1b) it occurs in the zero-marked absolutive:

(1)　a.　*Gizon-a-**k**　　ikasi　　du.*
　　　　　man-DEF-**ERG**　studied　has

　　　　　'The man has studied.'

　　b.　*Gizon-a-**Ø**　　etorri　da.*
　　　　　man-DEF-**ABS**　came　　is

　　　　　'The man has come.'

These two cases also surface in bivalent clauses: in the following, typical example, ergative marks the subject and absolutive the direct object:

(2)　*Gizon-a-**k**　　exte-a-**Ø**　　　saldu　du.*
　　　man-DEF-**ERG**　house–DEF-**ABS**　sold　　has

　　　'The man has sold the house.'

A distinction in auxiliaries is also apparent from these examples; in (1a) and (2) we observe a form of the auxiliary *edun HAVE, in (1b) a form of the auxiliary *izan* BE.

Ergative and absolutive arguments also trigger separate agreement endings. For example, first person singular ergative arguments trigger the suffix -*t*, e.g. *hau**t*** 'I have you', *du**t*** 'I have him/her/it'. First person singular absolutive arguments, however, trigger the prefix *n*-, e.g. ***n**auk* 'you have me', ***n**au* 'he/she has me'. (See Hualde, Oyharçabal & Ortiz de Urbina 2003 for further information.)

Amongst monovalent verbs,[1] the choice of case, agreement and auxiliary selection coincides exactly: ergative case with ergative agreement and auxiliary *edun, absolutive case with absolutive agreement and auxiliary *izan*. The case, agreement marking and auxiliary which occur is determined by the lexical verb: this in turn is subject to certain semantic generalisations, the description of which forms the basis of section 3. For example, verbs denoting *controlled non-motional processes* in the terminology of Sorace (2000)—such as *ikasi* 'to study' in (1a)—occur with ergative subjects and the associated agreement and auxiliary; verbs denoting *changes of location*—like *etorri* 'to come' in (1b)—occur with absolutive subjects.

However, case, agreement and auxiliary selection (which are discussed in section 3, following an overview of sources of data in section 2) are not the only phenomena by which monovalent predicates may be divided into two groups. A range of other constructions are permitted with only a subset of monovalent verbs, and as such can also be considered diagnostic of 'split intransitivity'. These sorts of patterns are covered in section 4. Importantly, the classes of verbs identified by these different constructions are not the same in every case. This has important consequences for approaches to split intransitivity following Perlmutter's (1978) Unaccusative Hypothesis. Specifically, the idea that monovalent predicates divide into exactly two classes in any given language is argued to be an over-simplistic picture given what is seen to emerge in Basque. This is discussed further in section 5. Section 6 concludes.

2 Sources of data

The data discussed here are drawn from a number of sources: both the existing literature and consultation of Basque speakers by the present author, through a number of online surveys. As concerns case patterns (section 3), the literature and the results of the surveys are very largely in agreement, though differences are noted when they arise. The main sources consulted in the literature are the following: de Rijk's (2008) grammar of (his interpretation of what constitutes) Standard Basque, Aldai's (2009) discussion of variation in Basque dialects and Alberdi's (2003) discussion of loanwords from Romance into Basque. Reference has also been made to the discussion of Basque in Levin (1983: ch. 6).

For reasons of space, I shall only overview the methodology of the surveys very briefly here. The first of the five surveys involved the translation of simple

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[1] The Basque literature typically restricts the term 'intransitive' to verbs taking absolutive subjects only, so I avoid this term here.

intransitive sentences from Spanish; the results of this survey, though helpful in some respects, are not discussed in detail here. For the remaining surveys, speakers were presented with a range of intransitive verbs, which either exemplified the categories identified by Sorace (2000) or else considered of particular interest on the basis of the Basque literature already cited, in a number of different contexts: different case frames (the results of which are presented in section 3), and subsequently with other constructions diagnostic of split intransitivity (section 4). Where demographic data were collected (for the second survey), the great majority of speakers were born or lived in the western part of the Basque Country.

For all surveys but the first, acceptability judgements were requested throughout on an 11-point Likert scale with values from 0 to 10. These have been idealised using the standard judgement notation, where average scores in the 0.00–2.99 range are assigned the '*' notation, those in the 3.00–7.99 range '?', and those in the 8.00–10.00 range unmarked (i.e. fully acceptable). Scores in each of these three ranges are denoted respectively by roman, italic and boldface in the tables of results to follow.

3 The semantic basis of the intransitive case split in Basque

3.1 Introduction

Basque case assignment, agreement and auxiliary selection have been discussed extensively in the literature: in addition to other references above and below, see, for example, Ortiz de Urbina (1989), Cheng & Demirdache (1993), Aldai (2006), Berro (2012) and Berro & Etxepare (2017). However, relatively few attempts have been made to characterise the patterns explicitly. They are often connected to Perlmutter's (1978) unergative/unaccusative distinction (e.g. by Levin 1983, Addis 1990, Laka 1993). However, in the absence of any clear-cut definition of what counts as unergative or unaccusative, these characterisations remain rather vague. Etxepare (2003) and de Rijk (2008) give various lists of verbs classified by their case-marking behaviour and subdivided into various semantic categories. Aldai (2009) and Berro (2012) each discuss certain aspects of the basis of the case split in the context of dialectal variation.

In this section I shall give a new classification of case-marking patterns in Basque drawing on the categories of intransitives identified by Sorace (2000). However, two complications which are not dealt with should be briefly covered. Firstly, Basque has a wide degree of dialect variation, in respect to case/agreement/auxiliary selection as well as many other properties. The most extensive discussion of this dialect variation as regards case etc. is that of Aldai (2009). The broad generalisation is that eastern varieties of Basque make very little use of the ergative in monovalent contexts, whereas it is found much more widely in western varieties (central varieties pattern between the two). The claims of this chapter generally concern only *western* Basque, which has very many more speakers than the eastern varieties and from which most of my data are drawn.

The second complication concerns the use of periphrastic constructions with the 'light verb' *egin*. In these constructions, *egin* combines with a nominal element to

produce a formally transitive sentence which corresponds to a simple intransitive in many other languages (and indeed *egin* forms often have simple monovalent equivalents in Basque):

(3) *Gizon-a-k   dantza egin du.*
     man-DEF-ERG dance   did   has

     'The man danced.'

egin constructions generally denote 'processes' in the sense of Sorace (2000) (see table 1). Other examples include *berba egin* 'to speak', *bidaia egin* 'to travel', *zurrunga egin* 'to bark' and many more (see lists in de Rijk 2008: 299–303). A few denote changes (e.g. *leher egin* 'to explode', *alde egin* 'to leave'; see Aldai 2009: 798 for further examples) and some possibly states (e.g. *dirdira egin* 'to shine'; de Rijk 2008: 299). *egin* constructions always take ergative subjects.

For reasons of space, I do not consider *egin* constructions further here—though note that as typical process-denoting verbs with ergative subjects they are in line with Basque process verbs in general, as simple process verbs also ordinarily have ergative subjects (see section 3.3).

The rest of this section discusses the case behaviour of a number of semantic classes of intransitives in Basque, based predominantly on the classes identified by Sorace (2000), in her discussion of split intransitive behaviours in various Western European languages. These classes are presented in table 1.

Controlled non-motional processes	*work, play, talk …*
Controlled motional processes	*swim, run, walk …*
Uncontrolled processes	*tremble, catch on, skid, cough, rumble, rain …*
Existence of state	*be, belong, sit, seem, be useful, please, depend on …*
Continuation of state	*stay, remain, last, survive, persist …*
Change of state	*rise, become, decay, die, be born, grow …*
Change of location	*come, arrive, leave, fall …*

Table 1   Classes of intransitives identified by Sorace (2000): the Auxiliary Selection Hierarchy.

The discussion draws on the existing literature and the surveys undertaken by the present author discussed in the previous section; the pertinent survey results are summarised in table 2.

3.2 Verbs of change and absolutive

Verbs in Basque which denote changes—verbs in Sorace's (2000) 'change of location' and 'change of state' classes—are almost all associated with absolutive case in all

Verb	Translation	ERG	ABS
bazkaldu	'to have lunch'	**9.61**	0.44
ikasi	'to study, learn'	**9.73**	0.56
trabailatu	'to work'	*3.73*	1.21
komulgatu	'to take communion'	7.72	*4.10*
jolastu	'to play'	**8.88**	*5.00*
olgatu	'to have fun'	3.26	5.37
borrokatu	'to fight'	**9.03**	*6.80*
mintzatu	'to talk'	3.86	**8.83**
dutxatu	'to shower'	1.14	**9.23**
ezkondu	'to get married'	0.89	**9.77**
dantzatu	'to dance'	**8.03**	*4.59*
korritu	'to run'	*6.04*	1.16
nabigatu	'to sail, navigate'	**8.33**	1.46
igerikatu	'to swim'	2.34	1.65
saltatu	'to jump'	*7.28*	1.96
bidaiatu	'to travel'	**9.06**	2.81
jauzi	'to jump'	*3.04*	*3.25*
paseatu	'to go for a walk/ride'	*6.21*	*4.81*
ibili	'to walk'	1.85	**8.69**
dardaratu	'to tremble'	*3.27*	2.88
irristatu	'to skid'	2.00	**9.45**
ikaratu	'to tremble with fear'	1.39	**9.61**
argitu	'to shine'	2.93	*5.19*
dirdiratu	'to shine'	*6.41*	*3.33*
iraun	'to last, stand'	**9.55**	0.83
deskantsatu	'to rest'	**8.32**	2.00
antsiatu	'to worry'	2.37	*3.46*
jardun	'to be busy'	*7.30*	6.21
gelditu	'to stop, remain'	2.37	**9.22**
hazi	'to grow'	0.96	**9.10**
hil	'to die'	0.89	**9.30**
jaio	'to be born'	0.26	**9.34**
aldatu	'to change'	*4.57*	**9.56**
irakin	'to boil'	**9.30**	*4.50*
eboluzionatu	'to evolve'	**8.52**	*5.81*
erori	'to fall'	0.42	**9.38**
iritsi	'to arrive'	0.85	**9.71**
etorri	'to come'	0.38	**9.93**

Table 2   Average scores for verbs with subjects in ergative and absolutive cases.

dialects. Concomitantly, these verbs are also associated with absolute agreement and auxiliary *izan* BE. Examples of these verbs used in sentences are as follows:

(4) a. *Gizon-a-Ø   iritsi   da.*
         man-DEF-ABS arrived is

         'The man arrived.'

     b. *Gizon-a-Ø   hil   da.*
         man-DEF-ABS died   is

         'The man died.'

Other change of location verbs associated with absolutive include: *joan* 'to go', *etorri* 'to come', *erori* 'to fall', *igan* 'to ascend', *sartu* 'to go in', *irten* 'to come out' and others (de Rijk 2008: 116, 136–38). Other change of state verbs associated with absolutive include: *jaio* 'to be born', *desagertu* 'to disappear', *erre* 'to burn', *hautsi* 'to break' etc. (de Rijk 2008: 136–38, 276, and see there for longer lists; de Rijk's characterisations of the case properties of these verbs are supported by my own results).

Also in this category are intransitive verbs whose radical is a noun, adjective or adverb, used with the meaning 'to become X', e.g. *aberats* 'rich' yields *aberastu* 'to become rich', *berandu* 'late' gives *berandutu* 'to get late', *adiskide* 'friend' gives *adiskidetu* 'to become friends' (-*tu* is the regular past participle suffix found in the citation form of verbs). These verbs thus denote a change of state, and as might be predicted take absolutive subjects:

(5) *Gizon-a-Ø   aberastu   da.*
     man-DEF-ABS rich.became is

     'The man became rich.'

Nouns in the allative case can also be used as verb radicals with the meaning 'to move to N', e.g. *atera* 'to the door' yields *ateratu* 'to go out'; *extera* 'to home' gives *exteratu* 'to go/come home'. These can be construed as change of location verbs—again, they take absolutive subjects as would be predicted:

(6) *Gizon-a-Ø   ateratu   da.*
     man-DEF-ABS gone.out is

     'The man went out.'

See de Rijk (2008: 151–53) for further discussion of these derived verbs, and additional examples.

The general rule, then, is that if a verb denotes a change it is associated with absolutive marking. There are, however, a few exceptions to this general rule: verbs (apparently) denoting changes which are in fact associated with the ergative (ergative case, ergative agreement, and auxiliary **edun* HAVE). These include, and

may well be restricted to, two related verbs meaning 'to boil'—*irakin* and *irakitu*—plus two other verbs, *aldatu* 'to change' and *eboluzionatu* 'to evolve' (Aldai 2009: 792).

It is not clear, in fact, that the first two should be interpreted as verbs of change at all. Aldai writes concerning these verbs:

> Although *boil* may seem a straightforward change of state applying to a liquid, notice that, from a cognitive perspective (unlike a physical perspective), there is not a clear-cut end-point delimiting that change. Rather, what is cognitively noticeable is an activity occurring in the liquid (after the boiling point has been reached). Thus, *boil* may be conceptualized as a non-absolutive activity instead of a patientive change. (Aldai 2009: 792)

In Sorace's terms, then, *irakin* and *irakitu* 'to boil' are very possibly (uncontrolled) processes, not changes of state at all, and the occurrence of these verbs with ergative marking is thus expected. However, attractive as this idea is, the fact remains that *irakin* consistently patterns with change verbs in other respects: it does not permit the nominalising suffix *-le* (equivalent to English *-er*), it has a transitive causative alternant and can be used as an attributive participle (e.g. *ur irakina*). These issues are covered in section 4 below, and suggest that *irakin* really is grammaticalised as a change verb, but happens to idiosyncratically take ergative subjects nevertheless.

My informants did strongly accept *irakin* with the ergative in the following sentence:

(7) *Ur-a-k*   *irakin du.*
     water-DEF-ERG boiled has

     'The water has boiled.'

However, the average score with the absolutive given to the sentence in (8) was toward the middle of the scale:

(8) ?*Ur-a-Ø*   *irakin da.*
     water-DEF-ABS boiled is

     'The water has boiled.'

This was unlike many other verbs where the absolutive tended to be either more strongly accepted or more strongly rejected. Thus, speakers prefer *irakin* with the ergative but are not completely opposed to its use with the absolutive.

As concerns *aldatu* 'to change' and *eboluzionatu* 'to evolve', Aldai (2009: 792) claims these are 'occasionally heard with ergative subjects in Western Basque'. Respondents to my second survey strongly accepted *aldatu* with absolutive ((9a)); with ergative it scored on average towards the middle of the scale ((9b)):

(9) a. *Gizon-a-Ø*   *aldatu*   *da.*
     man-DEF-ABS changed is

     'The man has changed.'

   b. ?*Gizon-a-k*   *ikasi*   *du.*
     man-DEF-ERG changed has

     'The man has changed.'

With the same respondents, the opposite overall pattern emerged with *eboluzion-atu*: a middling average score with the absolutive ((10a)) and strong acceptance with the ergative ((10b)):

(10) a. ?*Animalia-Ø eboluzionatu da.*
     animal-ERG evolved   is

     'The animal has evolved.'

   b. *Animalia-k eboluzionatu du.*
     animal-ERG evolved   has

     'The animal has evolved.'

We might think these verbs are prototypical change verbs—after all, the denotation of a change is central to their meaning. If so, the availability of ergative case (even if absolutive is also a possibility) is surprising. One possible reason for the strange behaviour of these verbs is that they do not explicitly encode an end-state, whereas most change verbs do (e.g. 'to burn' encodes the end-state of being burned). Perhaps, then, they are not so prototypical after all: the prototypical 'change' semantics requires an end-state, which is lacking here. Hence, they are more easily accepted with ergative subjets.

We may also note, as does Aldai (2009: 792), that *eboluzionatu* is a recent loanword (from Romance). This may be the Basque ergative has a formal equivalence to the Romance nominative (see Rezac, Albizu & Etxepare 2014 for one set of arguments in this direction). Romance intransitives like Spanish *evolucionar* of course take nominative subjects. It is plausible that Basque speakers, who are generally bilingual in Spanish (Amorrortu 2003: 64), might in recent times have started to borrow Spanish nominative-subject verbs as ergative-subject ones (this would not apply to older loanwords). Analogy (in either direction) between the semantically similar *eboluzionatu* 'to evolve' and *aldatu* 'to change' might also play a role.

3.3 Process verbs and ergative

Whereas change verbs are generally associated with the absolutive, verbs in Sorace's 'process' class prototypically take arguments in the ergative in (western) Basque. To recap, these verbs come in three categories—uncontrolled processes like 'cough' and 'tremble', controlled motional processes like 'swim' and 'run', and controlled

non-motional processes like 'work' and 'play'—and correspond to traditional so-called 'unergatives'. The following examples show the typical ergative-marking pattern with simple verbs of this type:

(11) a. *Gizon-a-k   ikasi   du.*
          man-DEF-ERG studied has

          'The man has studied.'

      b. *Gizon-a-k   dantzatu du.*
          man-DEF-ERG danced   has

          'The man has danced.'

      c. *Gizon-a-k   dardaratu du.*
          man-DEF-ERG trembled   has

          'The man trembled.'

However, whilst there are only a few exceptions to the rule that change verbs take absolutive arguments (as discussed above), there are numerous apparent exceptions to the generalisation that process verbs occur with arguments in the ergative. Closer analysis, however, reveals that these 'exceptions' fall into three main groups: (i) verbs of motion; (ii) verbs which are semantically reflexive or reciprocal, (iii) certain uncontrolled processes. However, the first two of these groups are amenable to an analysis which suggests they may not be as exceptional as they first appear, and the exceptionality of the third (small) group can be understood in terms of Sorace's hierarchy: thus, there is in fact a good deal more systematicity to the Basque case assignment system than may superficially appear to be the case. I shall now discuss the three groups of apparent exceptions in turn.

3.3.1 Verbs of motion

A number of verbs denoting manner of motion are mentioned in the literature as associated with absolutive, or as variable between absolutive and ergative (even in the western dialects). Included in this category Alberdi (2003: 34) lists the Romance loanwords *saltatu* 'to jump', *nabigatu* 'to sail, navigate', *paseatu* 'to go for a walk or ride' and *dantzatu* 'to dance'; to these we can add the native verb *jauzi* 'to jump' from de Rijk (2008: 136).

My findings suggest speakers prefer the ergative with every one of these verbs except *jauzi* 'to jump', where the absolutive is very slightly favoured. Both *saltatu* 'to jump' and *nabigatu* 'to sail, navigate' nevertheless receive rather low average ratings with the ergative, but *paseatu* 'to go for a walk or ride' and *dantzatu* 'to dance'—whilst still rated better than with the absolutive—score towards the middle of the acceptability range with ergative marking.

Three other controlled motional process verbs tested—*igerikatu* 'to swim', *korritu* 'to run' and *bidaiatu* 'to travel' —were each likewise preferred with the ergative, being given low ratings with the absolutive: though note that *korritu* and (especially)

igerikatu received rather low ratings even with the ergative, speakers preferring *egin* constructions for these senses.

Only one verb tested which unambiguously denotes a manner of motion scored significantly higher with the absolutive: *irristatu* 'to skid'. (Though see also the discussion of *ibili* 'to walk, move about' at the end of this subsection.) Note that this verb denotes an uncontrolled process and is hence less prototypically ergative than those discussed above, which may be a contributing factor in its case assignment properties. *irristatu* was offered by several respondents to the first survey as a translation of Spanish *patinar* 'to skid, to slip; to skate': several others gave instead forms of *patinatu* 'to skate' which, unlike the near-synonymous *irristatu* is consistently associated with the ergative. *irristatu*, then, appears somewhat idiosyncratic in its case properties.

The overall generalisation, then, is that there is a certain tendency for verbs denoting motional processes to be accepted with absolutive, although generally speaking the ergative is still preferred. This general preference for ergative is in line with the generalisation that process verbs are associated with ergative in Basque; however, the alternative (if less accepted) option of absolutive with these verbs remains a matter to be explained.

The explanation I suggest is the following: motional processes may optionally be conceptualised as change of location verbs. (This occurs with some verbs more readily than with others.) This follows naturally from the fact that these verbs generally do denote some sort of change of location on a purely semantic level. Where this change of location property is taken into account by the syntax, such verbs are associated with the absolutive, in line with the general rule that the absolutive occurs with change verbs. Conversely, where the change of location property is absent, or overlooked in the syntax, they occur with the ergative—again, as expected. Thus these verbs are not really exceptions to the rule, in spite of appearances.

Finally, a note on *ibili*, sometimes glossed as 'to walk'. This verb is strongly accepted with the absolutive, and rejected with the ergative. This may appear surprising, given the manner of motion verbs discussed above generally seem to allow both cases to some degree. However, the behaviour of *ibili* can be better understood when it is noted that 'to walk' is often a rather misleading translation, and it often has a more general meaning along the lines of 'to go about' or 'to move'. This suggests that it is not, at core, a 'controlled motional process' verb at all (that is, it does not inherently specifying the manner of motion at all), but rather a verb that is always in the 'change of location' category—here the strong preference for absolutive is entirely as expected. Nevertheless, walking (as opposed to some other means of travel) is often implied, though this is by no means always the case, for example it can also be used to mean 'to commute' (not necessarily on foot) , 'to run' and 'to fly' (of e.g. birds).

Note that a very sizeable minority of speakers, in my first survey, asked to translate Spanish *El hombre camina* 'The man walks, is walking', did not volunteer a form with *ibili* alone (as in (12a)) but rather made use of some other phraseology like that seen in (12b), literally 'The man goes about (*ibili*) on foot':

(12)   a.   *Gizon-a-Ø   dabil.*
            man-DEF-ABS   move.about

       'The man walks.'

       b.   *Gizon-a-Ø   oin-ez   dabil.*
            man-DEF-ABS   foot-INS   move.about

       'The man walks.'

That *ibili* alone was felt by a considerable number of speakers to be insufficient as a translation of *caminar* 'to walk' again suggests the more general meaning, not specifying manner of motion inherently, may be more basic—but note again that many other speakers did feel *ibili* alone to be sufficient in this context.

3.3.2 Reflexive/reciprocal verbs

In addition to the verbs of motion discussed in the previous subsection, the literature also reports a number of other verbs, apparently of the 'process' class, which may occur with absolutive marking in Basque, rather than the 'expected' ergative marking otherwise associated with this class. In this subsection I will argue that the great majority of these may be analysed as including a covert reflexive or reciprocal element.[2]

Indeed, many of these verbs are loanwords with their origins in forms that are reflexive in Romance. These include *dutxatu* 'to shower', *mutinatu* 'to rise up, to rebel, to mutiny', *portatu* 'to behave, to act', *atrebitu* 'to dare', *federatu* 'to federate' (Alberdi 2003: 33—34, 41—43) and others. The general tendency is for such verbs to be borrowed as absolutive-marking in Basque (Alberdi 2003: 33). Note that in Romance they are marked with an overt clitic pronoun, as in the follow French example:

(13)   *Lucie s'   est douchée.*
       Lucie REFL   is   showered

       'Lucie showered.'

In Basque, however, no such pronominal form is pronounced:

(14)   *Gizon-a-Ø   dutxatu   da.*
       man-DEF-ABS   showered is

       'The man showered.'

I suggest, however, that covert reflexive making of some sort can be posited for these verbs in Basque. That is, they are syntactically not really so different from their Romance counterparts. This reflexive element somehow triggers the use of absolutive case on the subject

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2   Cf. the not dissimilar, though less elaborated, discussion in Aldai (2009: 820).

Good support for this analysis is found in the fact that one reflexivisation strategy in Basque likewise does not involve the use of overt reflexive marking, excepting that the argument is marked in the absolutive case (with the concomitant absolutive agreement and auxiliary *izan* BE) (Saltarelli 1988: 220; Artiagoitia 2003: 629–30). For example:

(15)   *Amaia-Ø   ez   da zaintzen.*
      Amaia-ABS   not   is   taking.care

      'Amaia doesn't take care of herself.'   (adapted from Artiagoitia 2003: 629)

Thus, there is strong independent evidence that Basque does not require an overt reflexive element to form reflexive clauses. Given this, it is not surprising that Romance reflexive verbs should also use the same covert reflexivisation strategy when borrowed into Basque.

In some instances the reflexive origin of a loanword may be less obvious, as is the case with *komulgatu* and *komekatu* (both) 'to take communion' and *olgatu* 'to have fun'. These are derived from words which are not reflexive in modern French and Spanish but which seem to have had reflexive uses historically: see Alberdi (2003: 35) for discussion. Alberdi (2003: 34) reports these verbs as variable in the case they govern: this is supported by my survey, where speakers gave fairly high scores to sentences with *komulgatu* and *olgatu* regardless of the subject's case, though preferring the ergative with *komulgatu* and the absolutive with *olgatu* (*komekatu* was not tested). The natural analysis is that, in those cases where they occur with the absolutive, these verbs like those discussed above have retained a reflexive element, although this may have been lost in the source language. Plausibly also, the phonological similarity between *olgatu* and *komulgatu* may have reinforced the similar syntactic patterning.

The same analysis—the presence of a covert 'reflexive' encoding triggering absolutive case-marking—can also be extended to a number of other verbs, including several native verbs. A number of these appear to be reciprocal in character. *ezkondu* 'to get married' and *solastatu* 'to converse' are two verbs associated with absolutive marking (de Rijk 2008: 138) that clearly seem to involve a semantic notion of reciprocality. Cross-linguistically, reciprocality and reflexivity are commonly encoded in the same way (Payne 1997: 200; this is true for example of the Romance languages); Basque also allows reciprocals to be formed via 'detransitivisation' (absolutive case and *izan* BE) with some verbs, in the same way as reflexives (Artiagoitia 2003: 617–18):

(16)   *Anai-arreb-a-k   asko   maite dira.*
      brother-sister-DEF-PL   much   love   they.are

      'The brothers and sisters love each other.'   (Artiagoitia 2003: 618)

We can analyse these verbs in the same way as the Romance reflexive loanwords just discussed, as involving a covert reflexive element which is responsible for the absolutive marking.

Several otherwise problematic verbs may also fall into this category of 'reciprocal' verbs, including *jolastu* 'to play', *borrokatu* 'to fight' and *gudukatu* 'to wage war' reported by Etxepare (2003: 390) as varying between ergative- and absolutive-marking. In my survey speakers clearly preferred the ergative with these verbs, but did give relatively high scores with the absolutive. Also of note in this category is the verb *mintzatu* 'to talk, to converse', which is consistently found with the absolutive in spite of its clear 'controlled non-motional process' semantics.

Note that verbs of this sort frequently occur in reciprocal contexts:

(17) a. *Haurr-ak   elkarr-i   mintzatu zaizkio.*
child-DEF.PL.ABS each.other-DAT spoken   they.are.to.him

'The children have spoken to each other.'   (Rebuschi 2004: 857)

b. *Epi-Ø eta Blas-Ø elkarr-en   kontra borrokatu dira.*
Epi-ABS and Blas-ABS each.other-GEN against fought   they.are

'Epi and Blas fought against each other.'   (Artiagoitia 2003: 609)

It is plausible, then, that verbs like *jolastu* etc. are (sometimes, or in the case of *mintzatu* always) encoded as formally reflexive in the same way as the verbs discussed above. This is suggested by examples such as the following, where the sense 'talked/played with each other' is implicit:

(18) a. *Luzaz mintzatu ginen   horreta-z.*
widely conversed we.were these-INS

'We talked at length about these things.'

b. *Zelai-txo   bat-ean   jolasten ziren.*
meadow-DIM INDEF-INESS playing they.were

'They were playing in a small meadow.'   (Azkarate 1996)

However, not every use of these verbs is reciprocal, as is clear for example where the subject is singular:

(19) *Gizon-a-Ø   mintzatu da.*
man-DEF-ABS spoken   is

'The man spoke.'

It might be questioned, therefore, whether an analysis of the case-marking behaviour of these verbs in terms of their grammaticalisation as reflexives is really appropriate. However, because syntactic features do not need to map directly onto semantic properties, it is plausible that a feature [+reflexive], initially found with certain verbs in reciprocal contexts, might be generalised to other uses of those verbs as well. The use of reflexive formations with these sorts of verbs is also attested in the neighbouring Romance languages, as in the following example from French:

(20) *Les femmes se   battent pour leurs droits.*
     the women REFL fight   for   their rights

     'The women fight for their rights.'

Note, however, that we do not expect this sort of grammaticalisation to take place at random. It is only to be expected with intransitive verbs which readily allow reciprocal uses.

3.3.3 Uncontrolled processes

The class of uncontrolled processes show somewhat variable behaviour: though note that this class is very small which makes it difficult to draw generalisations. Some are preferred with ergative marking, e.g *dardaratu* 'to tremble'—though respondents were in fact not terribly accepting of this verb with either case. Others are preferred with absolutive marking, e.g. *ikaratu* 'to tremble with fear'. Essentially, then, case-marking with uncontrolled processes in Basque appears to be lexically determined. *irristatu* 'to skid' also occurs with absolutive subjects, as discussed in subsection 3.3.1 above; this may relate to its motional process nature.

3.4 State verbs

Intransitive verbs expressing states (the 'existence of state' and 'continuation of state' categories of Sorace 2000) show more variable behaviour than the other classes so far discussed. Some take absolutive subjects, others ergative ones, with no obvious semantic basis for the split.

State verbs which take absolutive subjects include *gelditu* 'to stop, remain', *kexatu* 'to worry', *izan* 'to be', *aritu* 'to be occupied' and several others (de Rijk 2008: 137, 152; Alberdi 2003: 41).

State verbs which take ergative subjects include *iraun* 'to last', *irakin* 'to endure', *existitu* 'to exist' and others (de Rijk 2008: 187; Alberdi 2003: 41, Aldai 2009: 792). Note that these verbs are in a minority; a greater number of state verbs occur with the absolutive.

A few verbs show some degree of variable behaviour. For example, Alberdi (2003: 34) reports *deskantsatu* 'to rest' as allowing subjects in either case (though my respondents strongly preferred it with the ergative). *jardun* 'to be busy', reported by de Rijk (2008: : 136) to be ergative-marking, was also fairly well accepted with the absolutive by my respondents.

3.5 Emission verbs

Verbs of emission, though not one of Sorace's categories, are worth some brief independent discussion. These verbs show very consistent behaviour in Basque— they occur with ergative subjects. For example:

(21) *Eguzki-a-k   argitu du.*
      sun-DEF-ERG shone has

    'The sun has shone.'

This pattern is also seen with other light emission verbs like *dirdiratu* 'to shine' and sound emission verbs like *erauntsi* 'to rumble' (Berro 2010: 59). It is not immediately clear into which of Sorace's categories these verbs should be placed.

3.6 Summary

In summary, case assignment and associated properties with Basque intransitives has a largely although not entirely consistent semantic basis, summarised in table 3. Intransitives denoting changes generally occur with absolutive subjects, with a very few exceptions. Process intransitives usually have ergative subjects, though some uncontrolled processes are exceptions to this generalisation, as are some apparent exceptions which can be accounted for in terms of the syntax treating certain of these verbs as representing changes (of location) or covertly reflexive predicates. State verbs vary idiosyncratically as to which case their subjects occur with.

Controlled non-motional process	ergative (sometimes absolutive if grammaticalised as refexive)
Controlled motional process	ergative (sometimes absolutive if grammaticalised as a change of location)
Uncontrolled process	ergative or absolutive (lexically determined)
State	ergative or absolutive (lexically determined)
Change of state	absolutive
Change of location	absolutive

Table 3   Summary of regular case-marking patterns in Basque.

Note particularly the good correspondence between Basque case assignment and Sorace's (2000) Auxiliary Selection Hierarchy, which was presented in table 1 and was originally proposed to describe auxiliary selection behaviours in various other Western European languages. Specifically, verbs in the topmost category (controlled non-motional processes) are generally associated with ergative marking. Verbs in the middle (state, uncontrolled process and motional controlled process categories) occur with either ergative or absolutive marking: the variable behaviour of these classes is less surprising when considered in this light. Verbs in the bottommost categories (changes of location and state) occur typically with absolutive marking. Thus, the overall generalisation is that the closer to the top of the hierarchy a verb is, the more likely it is to occur with ergative subjects; the closer to the bottom, the more likely it is to occur with absolutive subjects. This is thus further support for the ASH as a descriptive generalisation of how split intransitive behaviours pattern across a range of languages. It is particularly striking here that the conformity to the

ASH is found not only with auxiliary selection (though Basque auxiliary selection does conform to it) but also with case and agreement.

This concludes the characterisation of the semantic basis of split intransitive case alignment in Basque. The following section expands the discussion of split intransivity in Basque by considering a number of further phenomena.

4 Other split intransitive behaviours in Basque

4.1 Introduction

The ergative/absolutive case split and the corresponding splits in case and auxiliary selection are the most obvious split intransitivity diagnostics in Basque, but a number of others also exist. In this section, I discuss in turn the partitive case (subsection 4.2), diagnostics of telicity (subsection 4.3), the causative alternation (subsection 4.4), cognate objects and similar arguments (subsection 4.5), the ergative nominalising suffix *-(tzai)le* (subsection 4.6), the impersonal construction (subsection 4.7) and postnominal past participles (subsection 4.8).

Much of the data in this section is drawn from the surveys of native speakers of which the methodology was overviewed in section 2. The survey results concerning the diagnostics discussed in this section are summarised in table 4, with the exception of the telicity diagnostics which are covered in table 5.

Verb	Translation	Preferred case	Partitive	Causative	-(tzai)le	Postnominal past participle
ikasi	'to study'	ERG	0.38	1.13	**9.70**	*6.75*
dutxatu	'to shower'	ABS	**8.43**		1.50	*4.00*
mintzatu	'to speak'	ABS	**6.88**	1.14	*7.29*	1.50
dantzatu	'to dance'	ERG	*3.13*		1.80	0.86
nabigatu	'to navigate'	ERG	1.00	1.14	**8.67**	*4.38*
deskantsatu	'to rest'	ERG	0.43	2.43	1.29	*5.50*
iraun	'to last'	ERG	1.63	0.75	1.71	2.25
gelditu	'to stop, remain'	ABS	**8.75**	*7.11*	*3.00*	2.90
soberatu	'to be left over'	ABS	*3.13*		1.13	1.86
hazi	'to grow'	ABS		*5.20*	1.20	*5.19*
hil	'to die'	ABS	**9.10**	**8.88**		**8.60**
aldatu	'to change'	ERG	2.67	*7.20*	*5.22*	*7.00*
jaio	'to be born'	ABS		0.57		*4.18*
irakin	'to boil'	ERG		**9.70**	1.57	**8.57**
erori	'to fall'	ABS		0.63	2.89	*5.60*
etorri	'to come'	ABS	**8.80**	0.25	1.88	2.83
heldu	'to arrive'	ABS		0.71		1.25
ibili	'to walk'	ABS			*3.11*	*5.25*
joan	'to go'	ABS			*3.38*	

Table 4   Average scores for various split intransitivity diagnostics.

4.2 Partitive case

One further split intransitivity diagnostic which does coincide with the three discussed above is the marking of arguments with the partitive case ending *-(r)ik* (see also [Levin 1983](): 313–19, [de Rijk 2008](): 292). Under the appropriate circumstances—negative, interrogative, exclamative and conditional clauses ([Levin 1983](): 315)—an intransitive which would ordinarily take an absolutive argument may instead take a partitive one, for example:

(22) a. *Ez da haurr-a   etorri.*
          not is child-DEF(-ABS) come

          'The child has not come.'

   b. *Ez da haurr-**ik**   etorri.*
          not is child-**PART** come

          'No child has come.'   ([Berro 2010](): 74, citing [Salaburu 1992](): 427)

However, intransitives which require the ergative do not take partitive arguments:

(23) a. *Ez du haurr-a-k   ikasi.*
          not has child-DEF-ERG studied

          'The child has not studied.'

   b. **Ez du haurr-ik   ikasi.*
          not has child-PART studied

          'No child has studied.'

These intransitives are ungrammatical with the partitive even with auxiliary *izan* BE:

(24) **Ez da haurr-ik   ikasi.*
        not is child-PART studied

        'No child has studied.'

A parallel pattern is found amongst transitives: objects (which are usually absolutive) may occur in the partitive case, but subjects (usually ergative) do not.

Crucially, note that the relations between the ergative, the absolutive and the partitive hold even of intransitive verbs where the ordinary choice of case appears semantically anomalous. The partitive is not, therefore, possible with the change-denoting ('unaccusative') verb *irakin* 'to boil' which takes ergative case:

(25) a. *Ez du ur-a-k irakin.*
   not has water-DEF-ERG boiled

   'The water has not boiled.'

  b. **Ez du/da ur-ik irakin.*
   not has/is water-PART boiled

   'No water has boiled.'

The partitive is, however, possible with the process ('unergative') verb *mintzatu* which otherwise takes absolute subjects:

(26) a. *Ez da haurr-a mintzatu.*
   not is child-DEF(-ABS) spoken

   'The child has not spoken.'

  b. *Ez da haurr-ik mintzatu.*
   not is child-PART spoken

   'No child has spoken.'

4.3 Telicity

Unaccusativity has often been connected to telicity (Tenny 1987, Zaenen 1988, *inter alia*). Basque speakers do not appear to have particularly strong judgements, in general, regarding the standard telicity diagnostics 'for'/'in' + phrase denoting a period of time. However, there is some degree of discrimination:

(27) a. *Gizon-a bost minutu-z ibili da*
   man-DEF(-ABS) five minute-INSTR walked is

   'The man walked for five minutes.'

  b. **Gizon-a bost minitu-ta-n ibili da.*
   man-DEF(-ABS) five minute-PL-LOC walked is

   'The man walked in five minutes.'

(28) a. **Gizon-a bost minutu-z heldu da.*
   man-DEF(-ABS) five minute-INSTR arrived is

   'The man arrived for five minutes.'

  b. *Gizon-a bost minitu-ta-n heldu da.*
   man-DEF(-ABS) five minute-PL-LOC arrived is

   'The man arrived in five minutes.'

Verb	Translation	Preferred case	*bost minutuz*	*bost minutaten*
			'for five minutes'	'in five minutes'
ikasi	'to study'	ERG	*6.67*	**9.00**
mintzatu	to speak'	ABS	**8.33**	*6.80*
jauzi	'to jump'	ABS	*3.00*	*5.14*
bidaitu	'to travel'	ERG	*5.33*	*4.20*
dantzatu	'to dance'	ERG	*7.62*	*6.33*
igerikatu	'to swim'	ERG	*3.80*	2.75
paseatu	'to go for a walk'	ERG	*7.40*	*3.83*
argitu	'to shine'	ERG	*3.50*	1.33
dirdiratu	'to shine'	ERG	*7.33*	*6.00*
jardun	'to be busy'	ERG	**8.00**	**9.75**
deskansatu	'to rest'	ERG	*7.60*	*7.50*
iraun	'to last'	ERG	*6.00*	0.00
olgatu	to have fun'	ABS	*5.50*	*4.00*
hazi	'to grow'	ABS	2.50	*7.20*
hil	'to die'	ABS	0.00	*7.50*
jaio	'to be born'	ABS	1.50	**7.25**
irakin	'to boil'	ERG	*4.00*	**8.00**
etorri	'to come'	ABS	4.20	6.75
heldu	to arrive	ABS	2.67	**9.25**
ibili	'to walk'	ABS	**8.33**	2.00
desagertu	'to disappear'	ABS	*7.57*	**8.75**

Table 5 Average scores with diagnostics of telicity.

As the examples above show, the verb *ibili* 'to move about, to walk' is accepted with *bost minutuz* 'for five minutes' but not with *bost minututan* 'in five minutes'; with *heldu* 'to arrive' the situation is reversed. We may then say that *ibili* is atelic whereas *heldu* is telic.

Nevertheless, in many cases speakers' judgements appear to be rather weaker than for the two verbs just discussed. Some overall patterns can be discerned, however. Intransitive verbs denoting changes seem to be more strongly (sometimes considerably so) accepted with *bost minututan* than with *bost minutuz* in most cases, suggesting it may be possible to classify them as telic. With other intransitives— those denoting states and processes—the pattern tends to be reversed, suggesting these verbs may be classed as atelic; this is true even of controlled motional process verbs which sometimes take absolutive arguments, like *paseatu* 'to go for a walk or ride', *dantzatu* 'to dance'. This patterning—'for five minutes' being noticeably dispreferred only with change verbs, though not with all of them—is broadly in line with what is observed in English.

Whilst something of a split sensitive to the status of a verb as denoting a change or otherwise is therefore apparent, a verb's case frame does not appear to have a direct relation to telicity. Ergative-marking change verbs like *irakin* 'to boil' nevertheless seem to pattern closer to telic than atelic, whereas absolutive-marking process verbs like *mintzatu* 'to speak' pattern closer to atelic. Overall there may be a slight preference for absolutive marking with telic verbs and ergative marking with atelic ones, but the correspondence is by no means absolute. We can conclude, then, that telicity is basically independent of case-marking in Basque.

4.4 The causative alternation

Basque, like many other languages, has a productive causative alternation, whereby the same verb may be used in both intransitive and transitive frames (Oyharçabal 2003; de Rijk 2008: 274–76). In Basque (prototypically), the ergative-marked argument of the transitive alternant is interpreted as the cause of the state or change predicated of the absolutive argument by the verb; the absolutive argument is also expressed in the intransitive alternant, and is interpreted as undergoing the same state or change, but the ergative argument is omitted:

(29) a. *Gizon-a   hil da.*
          man-DEF(-ABS) die is

          'The man has died.'

      b. *Errege-a-k   gizon-a   hil du.*
          king-DEF-ERG man-DEF(-ABS) die has

          'The king killed the man.' / 'The king made the man die.'

The matter of which intransitive verbs in Basque have transitive alternants expressing causation in this way is a somewhat complex one. The consensus in the literature is that the alternation is found with only absolutive-marking intransitives

(not ergative-marking ones), yet not with all of them (Oyharçabal 2003: 237–44, de Rijk 2008). For example, the alternation is found with *hil* 'to die'~'to kill', as seen in example (29a), and also with many other absolutive-marking intransitives. These include many change of state verbs (e.g. *hautsi* 'to break', *erre* 'to burn' …), but also many state verbs (e.g. *izutu* 'to be frightened'~'to frighten', *nazkutu* 'to be disgusted'~'to disgust', *geratu* 'to remain'~'to stop' …) and certain verbs of directed motion (e.g. *heldu*, 'to (make) arrive', *atera* 'to (make) go out'). Of some note is the permissability of the causative with *aldatu* 'to change', which prefers absolutive subjects but does allow ergative ones to some extent.

The causative alternation is not found, however, with a small, closed subclass of absolutive-marking verbs (Oyharçabal 2003: 240–41, 243; de Rijk 2008: 136–37), for example *etorri* 'to come':

(30)   a.   *Gizon-a   etorri da.*
           man-DEF(-ABS) come is

        'The man has come.'

       b. * *Errege-a-k   gizon-a   etorri du.*
           king-DEF-ERG man-DEF(-ABS) come has

        'The king came the man.' / 'The king made the man come.'

Other verbs in this class of absolutive-marking intransitives which do not allow the causative alternation include *erori* 'to fall', *jaio* 'to be born' and several others (Oyharçabal 2003: 243).

It is 'hard to explain' (Oyharçabal 2003: 243) why many of these verbs do not allow causative alternants when semantically similar verbs do. However, certain groups of absolutive-marking intransitives do form more systematic exceptions to the generalisation that these verbs have causative alternants. The alternation does not occur with reflexive verbs nor with those that semantically denote processes (Oyharçabal 2003: 234, 235). Reflexives, firstly, do permit transitive alternants, but these do not have causative meaning:

(31)   a.   *Haurr-a   beztitu da.*
           child-DEF(-ABS) dressed is

        'The child got dressed.'

       b.   *Gizon-a-k   haurr-a   beztitu du.*
           man-DEF-ERG child-DEF(-ABS) dressed has

        'The man dressed the child.'   (adapted from Oyharçabal 2003)

Process verbs which allow absolutive subjects (e.g. *mintzatu* 'to speak',[3] *dantzatu* 'to dance', *borrokatu* 'to fight' etc.) also lack transitive alternants (Oyharçabal 2003: 235–37):

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[3]   de Rijk (2008: 138), however, suggests *mintzatu* does have a causative alternant; this is not supported by the results of my survey.

(32) a. *Gizon-a   mintzatu da.*
          man-DEF(-ABS) spoken   is

      'The man has spoken.'

   b. **Errege-a-k   gizon-a   mintzatu du.*
       king-DEF-ERG man-DEF(-ABS) come   has

      'The king spoke the man.' / 'The king made the man speak.'

This is strong evidence for a split between process verbs and other intransitives which cross-cuts the Basque case split.[4]

ergative-marking intransitives appear to overwhelmingly lack causative alternants:

(33) a. *Gizon-a   ikasi   du.*
          man-DEF(-ABS) studied has

      'The man has studied.'

   b. **Errege-a-k   gizon-a   ikasi   du.*
       king-DEF-ERG man-DEF(-ABS) studied has

      'The king made the man study.'

Other verbs in this category include *nabigatu* 'to navigate' and so forth. Note that the alternation is ruled out not only with ergative-marking process verbs, but also ergative-marking state verbs like *iraun* 'to last' and *deskansatu* 'to rest'.

Interestingly, however, the causative alternation is accepted by my informants with the ergative-marking *irakin* 'to boil'—in fact, these informants accept the alternation with *irakin* more strongly than with any other verb tested:

(34) a. *Ur-a-k   irakin du.*
          water-DEF-ERG boiled has

      'The water has boiled.'

   b. *Errege-a-k   ur-a   irakin du.*
       king-DEF-ERG water-DEF(-ABS) boiled has

      'The king boiled the water.' / 'The king made the water boil.'

irakin is a very unusual verb, in that it apparently denotes an (externally-caused) change of state yet nevertheless takes ergative arguments. Yet in regard to the causative alternation it appears to pattern with the other change of state verbs. This again demonstrates that the causative alternation and case marking are sensitive to different sets of criteria.

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[4] One absolutive-marking process verb that may allow a causative alternant according to de Rijk (2008: 137–38) is *jauzi* 'to jump', although as a controlled motional process verb this may be grammaticalised as a change of location (see section 3.3.1). However, Oyharçabal (2003: 235) claims *jauzi* lacks a causative alternant.

In summary, then, the causative alternation is restricted to change and state verbs in Basque, though it does not occur with all of them. The availability of the alternation appears to be essentially independent of case marking.

4.5 Cognate objects etc.

Basque, like other languages, allows some intransitive verbs to take cognate objects, alongside a limited set of other complements, e.g. complements indicating sabsial length; this is discussed in Berro (2010: 13–15) and Berro (2012: section 5). For example:

(35) *Jolas polit bat   jolastu zuten.*
      game nice INDEF(-ABS) play   they.have

      'They played a nice game.'   (Berro 2010: 15)

(36) *Bi   kilometro   korritu ditut   oinutsik.*
      two kilometres run   I.have barefoot

      'I ran barefoot two kilometres.'   (Etxepare 2003: 395)

It appears that only verbs denoting processes are able to take objects of this type. This is true independent of the case properties of the verb: thus even verbs like *mintzatu* (a process verb which assigns absolutive) have transitive alternants (Berro 2010: 14–15):

(37) *Pitaud   mintzatu dugu.*
      Pitaud(-ABS) talked   we.have

      'We have talked to Pitaud.'   (adapted from Berro 2010: 14)

Non-process verbs cannot take objects, even if they assign ergative: this is true for example of *irakin* 'to boil', *iraun* 'to last' and non-ergative verbs denoting internal causation e.g. *distiratu* 'to glitter' (Berro 2012: 17):

(38) **Izarr-a-k   distir-a   distiratu du.*
      star-DEF-ERG glitter-DEF(-ABS) glittered has

      'The star has glittered a glitter.'

                                         (Berro 2012: 17, citing Fernández 1997: 117)

The non-availability of objects with emission verbs, as in the above example, may suggest these are grammaticalised as states rather than uncontrolled processes. However, this evidence is not conclusive.

4.6 Suffix -(tzai)le

The Basque suffixes *-tzaile* and *-le*, equivalent to English *-er*, denote the agent of an action described by a verb. *-le* is typically found with verbs which form their past participles in *-n* or *-i*, and *-tzaile* with other verbs (Trask 1997: 216–17).

The agent-denoting suffix as far as Basque intransitives are concerned is principally restricted to verbs denoting processes ('unergative' verbs), e.g. *nabigatu* 'to navigate' >*nabigatzaile* 'navigator', *ikasi* 'to study' >*ikasle* 'student'. It may be found even on a verb like *mintzatu* 'to speak' (>*mintzatzaile* 'speaker') which, although denoting a process, takes absolutive marking—though speakers' judgements are slightly weaker with this form than with the others just listed. On the other hand, the suffix tends not to occur with verbs denoting states or changes ('unaccusatives'): **erorle* 'faller', **gelditzaile* 'remainer' etc. This holds even of a verb like *irakin* 'to boil' which takes ergative case (**irakile* 'boiler'), though speakers have less clear-cut judgements about *?aldatzaile* 'changer' (<*aldatu* 'to change', which allows ergative arguments to some degree). Speakers also reject *-(tzai)le* forms of the ergative-assigning stative verbs *deskantsatu* 'to rest' and *iraun* 'to last'.

In summary, the availability of an agent nominal form in *-(tzai)le* does show some correspondence with a verb's case frame, but this correspondence is by no means absolute. Indeed, the evidence suggests that the availability of *-(tzai)le* forms tends to correspond to the process/non-process distinction even when the case employed with a given verb does not. This is evidence that this distinction is operational in Basque even if case assignment is not systematically sensitive to it, and casts doubt on the theory that all ergative-assigning verbs can be considered 'unergative' and all absolutive-assigners 'unaccusative': if this is the case, then why does the availability of *-(tzai)le* not conform to this pattern?

4.7 The impersonal construction

Basque allows subjectless clauses with auxiliary *izan* and third-person singular absolutive agreement to take on an 'impersonal' reading, for example:

(39) *Asko borrokatu da herri honetan.*
      a.lot fought   is town this-INE

      'People have fought a lot in this town.'   (Berro 2010: 72)

In Basque, as in many languages (see e.g. Perlmutter 1978, Zaenen 1988), the impersonal construction appears to be a split intransitivity diagnostic. It occurs not only with intransitive verbs that normally take ergative subjects, as in (39), but also with absolutive-marking process verbs like *mintzatu* 'to talk' (Fernández 1997, Berro 2010: 71–72):

(40) *Asko mintzatu da horr-etaz.*
      a.lot spoken   is that-about

      'People have talked a lot about that.'   (Berro 2010: 72)

25

Fernández and Berro claim the impersonal is not possible with 'unaccusatives', for example:

(41) *Asko jaio da.
       a.lot born is

      'People were born a lot.'   ([Berro 2010](): 72)

However, my survey results suggest the impersonal is at least fairly well accepted with some state and change verbs, by at least a good proportion of speakers:[5]

(42) a. Asko gelditu   da.
          a.lot remained is

          'People have remained a lot.'

      b. ?Asko aldatu   da.
          a.lot changed is

          'People have changed a lot.'

      c. ?Asko hil   da.
          a.lot died is

          'People have died a lot.'

In some cases the construction is strongly rejected:

(43) a. *Asko hazi   da.
          a.lot grown   is

          'People have grown a lot.'

      b. *Asko irristatu da.
          a.lot skidded is

          'People have skidded a lot.'

      c. *Asko ikaratu   da.
          a.lot trembled is

          'People have trembled a lot.'

hazi is a change of state verb; *irristatu* and *ikaratu* denote uncontrolled processes.
    There is some indication that the main factor at play here is volitionality or control. Those verbs which allow the construction tend to denote controlled events,

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[5] The second and third of these examples are marked ? to reflect average judgements of 6.86 and 6.57 respectively; note, however, that respondents also gave a score of 6.57 with *mintzatu*, for which Fernández and Berro report the construction as grammatical.

or at least events which can be construed as controlled. Those which disallow it, however, are those for which a controlled reading is difficult.[6]

4.8 Postnominal past participles

Basque, like many other languages, allows past participles to modify nouns; such participles are typically postnominal. The acceptability of postnominal past participles in Basque shows a certain correlation with the status of a verb as denoting a change or otherwise, although this correlation is by no means absolute. Nevertheless, the construction is most readily accepted with verbs like *irakin* 'boil' and *hil* 'die', which denote changes:

(44) a. *ur   irakin-a*
          water boiled-DEF

          'the boiled water'

      b. *gizon hil-a*
          man   died-DEF

          'the dead man, the man who has died'

Note that *irakin* is an ergative-assigning verb whereas *hil* is associated with the absolutive; the availability of the postnominal participle construction cannot be tied to a verb's case properties, therefore. (This is also additional evidence that *irakin* really is a verb of change.) Not dissimilarly, the construction is also accepted with *aldatu* 'to change', which also permits ergative subjects to an extent (though it prefers absolutive ones).

Not all change verbs appear to accept the construction, however:

(45) * *gizon etorri-a*
        man   come-DEF

        'the man who has come'

With verbs not denoting changes, the construction is generally less accepted:

(46) a. ? *gizon ikasi-a*
            man   studied-DEF

            'the man who has studied'

      b. ? *gizon deskantsatu-a*
            man   rested-DEF

            'the man who has rested'

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[6] Ortiz de Urbina (2003: 582–90) also discusses the availability of impersonals with absolutive-marking verbs, noting a restriction to verbs with implicit human subjects but not otherwise characterising precisely which verbs allow the construction.

    c. ***gizon dantzatu-a*
       man   danced-DEF

      'the man who has danced'

    d. ***gizon mintzatu-a*
       man   spoken-DEF

      'the man who has spoken'

Note that *ikasi* and *deskantsatu* are ergative-assigning verbs, whereas *mintzatu* assigns absolutive and *dantzatu* is variable. Again, then, no strong relation to case patterns appears to hold.

Whilst it is not, then, possible to categorically relate the acceptance of postnominal past participles to whether or not the verb denotes a change, there is evidence that this plays some role. It also appears that the acceptability of this construction is not related to a verb's case assignment properties. This is yet more evidence, then, that split intransitivity in Basque is not a unitary phenomenon.

5 Theoretical consequences

This section will overview some consequences of the data discussed in the previous two sections for the general theory of split intransitivity. Although it will not be possible to go into much detail in the present context, it will be shown that the Basque data presents considerable problems for approaches to split intransitivity following Perlmutter's (1978) Unaccusative Hypothesis.

This hypothesis suggests that intransitive predicates divide into (just) two groups, 'unergatives' and 'unaccusatives', each with a different basic grammatical relation for their single argument. In the influential recasting of the Unaccusative Hypothesis by Burzio (1986), unergatives have an external argument and unaccusatives an internal argument, corresponding to the subject and direct object of (active voice) transitives respectively.

With this hypothesis in mind, the reader is directed to the summary of the split intransitivity diagnostics discussed in sections 3 and 4 in table 6.

Case and related diagnostics	
Case	Changes vs. others with various exceptions; states variable
Agreement	Same as case
Auxiliary selection	Same as case
Partitive	Only in ABS contexts
Other diagnostics	
Telicity	Broadly changes vs. others, but not absolutely Not directly tied to case
Causatives	Only with a subset of change/state verbs
Cognate objects etc.	Process verbs
-(tzai)le	Predominantly with process verbs
Impersonals	Volitional verbs
Postnominal past participle	Preferred with changes (not absolute)

Table 6 Summary of classes identified by diagnostics.

The central observation of importance here is that *the diagnostics do not pick out the same sets of verbs*. While core case assignment, agreement, auxiliary selection and the distribution of the partitive do correspond, the other diagnostics identify different classes, each with a more-or-less coherent semantic basis.

These 'mismatches' between diagnostics are decidedly problematic for an Unaccusative Hypothesis-type approach, where predicates are in general expected to categorise as either unergative or unaccusative. One potential solution to this (following Levin & Rappaport Hovav's 1995 approach to split intransitivity in English) would be that certain verbs in the unergative class fail to pattern as expected with certain diagnostics for independent reasons, and likewise with the unaccusatives.

By way of illustrative example, observe that Basque case-marking does not line up entirely with many of the other diagnostics. We might potentially suggest that unaccusatives are generally absolute-marking (and absolute-marking intransitives are unaccusative), but that there are some unaccusatives which are exceptions to this for other, principled reasons. The absolutive-marking verbs are thus a proper subset of unaccusatives. Alternatively, we might suggest that the ergative-marking verbs are a proper subset of unergatives. These two alternatives are not straightforwardly treated as anything other than mutually exclusive.

However, this does not look so promising, however, once it is realised that many of the classes identified by the diagnostics *overlap* each other in ways this approach does not easily account for. Consider the relation between case-marking and other diagnostics like the causative alternation, cognate objects and *-(tzai)le*. On the face

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of it, these last three diagnostics look like rather good support for the Unaccusative Hypothesis. They pick out verbs from two mutually exclusive classes: the causative alternation occurs with (a subset of) state and change verbs, cognate objects and *-(tzai)le* are restricted to verbs in the process class (with some possible idiosyncratic exceptions in the latter instance). Further, these two classes correspond well to the unergative and unaccusative classes as identified by Perlmutter (1978) and subsequent work.

Case, however, creates some definite complications. (Note that this is in spite of the fact that Basque case-marking has itself been used as support for the Unaccusative Hypothesis, by Levin (1983) and others, and the classes identified by Basque case-marking do again roughly line up with those proposed by Perlmutter.) The causative alternation is mostly restricted to absolutive-assigning verbs, but is also possible with the ergative change of state verb *irakin* 'to boil', and ruled out with absolutive-marking process verbs (e.g. *mintzatu* 'to speak'), as discussed in subsection 4.4. Meanwhile, *-tzaile* can occur with *mintzatu*—which is not what would be predicted if it were sensitive to the same property as case—and does not occur with ergative-assigning state verbs (subsection 4.6). Cognate objects, likewise, are limited to process verbs, and do not occur with ergative-marking verbs in other categories (subsection 4.5).

Thus, the case split cross-cuts the split tentatively identified by these other diagnostics altogether. 'Unergatives' (which allow cognate objects and *-(tzai)le* and disallow causatives) can be either ergative- or absolutive-marking; so can 'unaccusatives' (which often allow causatives, and disallow the other two constructions). Neither of the possibilities mooted above—that absolutive-marking intransitives are a proper subset of unaccusatives, or that the ergative-marking intransitives are a proper subset of unergatives—seems to be compatible with this data.

The matter is complicated even further when we consider the impersonal construction (see the data discussed in subsection 4.7). This lines up neither with case (the availability of the impersonal construction is not restricted to ergative-marking verbs) nor with the other diagnostics just discussed. On the latter point, recall that causatives, cognate objects and *-tzaile* allow us to draw a distinction between process verbs, on one hand, and state and change verbs on the other. But the impersonal is possible with verbs in both classes, for example *borrokatu* 'to fight' (process, (39)) and *gelditu* 'to remain' (state, (42a)). The availability of the impersonal appears to be determined by distinct factors from all these other split intransitivity diagnostics, therefore. It is not available with a subset of one or the other of the classes identified by the other diagnostics, but cross-cuts these classes.

We also see evidence that the change and state classes should not be treated separately from the diagnostics of telicity (subsection 4.3) and the availability of postnominal past participles (subsection 4.8). While these do not correspond absolutely with any semantic property so far identified, there is nevertheless a noticeable correspondence with the property of denoting a change—and not, in these instances, the change verbs do not group together with the state verbs. This is not straightforwardly accounted for under the assumptions of the Unaccusative Hypothesis,

where change and state verbs are often held to comprise a single 'unaccusative' class.

The complexities of the interactions between the classes identified by the diagnostics can be seen particularly when we consider intransitive state verbs. On Unaccusative Hypothesis assumptions, we might argue these can be (i) either unergative or unaccusative (or the basis of case), (ii) generally unaccusative (on the basis of cognate objects, *-(tzai)le* and some state verbs which allow the causative alternation) or (iii) broadly unergative (on the basis of telicity and postnominal past participles). This extreme ambiguity is clearly not a good thing. And, as discussed, other verbs (e.g. *mintzatu* 'to speak') also seem to classify differently depending on the diagnostic in question. All this is difficult to account for in Unaccusative Hypothesis terms.

It would be possible, of course, to claim that several of these properties have nothing to do with unaccusativity *per se*, and we need only concern ourselves with one set that does pick out a coherent class, but this leaves open further questions—which set of diagnostics should be selected (and why), and how do we account for the other behaviours? In summary, then, the evidence suggests the Unaccusative Hypothesis in its standard form cannot fully explain split intransitive patterns in Basque.

A few other possible analyses present themselves. One is that split intransitivity should be dissociated from grammatical relations or argument structure altogether, as suggested for other languages by authors such as Zaenen (1988) and Van Valin (1990). Dealing with similarly problematic data, these authors suggest split intransitivity should be understand as relating only to semantic properties; different split intransitive phenomena can be sensitive to different properties. In this regard, it can be noted again that many of the classes identified do have a reasonably solid semantic basis (e.g. cognate objects are found with process verbs; causatives with (some) change and state verbs).

A notable disadvantage of this possibility, however, is that it does not make use of the insight that split intransitivity can be related to syntactic argument structure (Burzio 1986, building on Perlmutter's 1978 account of unaccusativity in terms of grammatical relations). There are many reasons for thinking split intransitivity and syntactic argument structure are related in this way. A simple example from Basque concerns case marking. As already mentioned in section 1, ergative case marks the subject and absolutive the direct object of Basque bivalent clauses:

(47)   *Gizon-a-**k***   *exte-a-**Ø***   *saldu du.*
       man-DEF-**ERG** house–DEF-**ABS** sold   has

       'The man has sold the house.'

It is generally agreed that this sort of patterning ought to be connected to the (absolute or relative) structural position of the arguments. (For example, the explanation of Rezac et al. 2014 of case in Basque along the lines of Chomsky 2001, or M. Baker & Bobaljik's 2017 dependent case account.) This suggests variation between
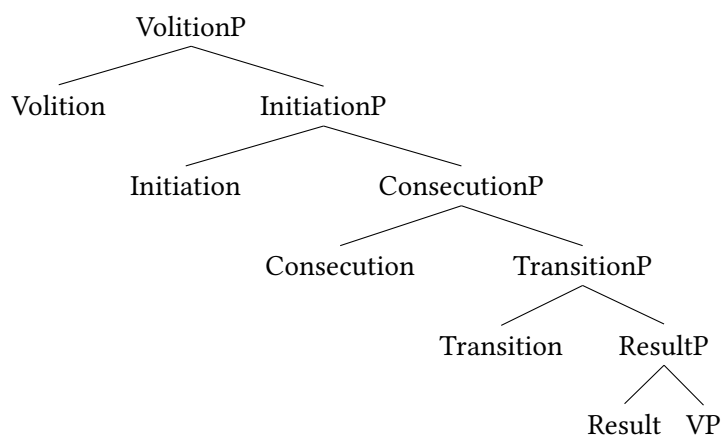
ergative and absolute with the arguments of monovalent verbs ought also to be accounted for in positional terms.

Another phenomenon which can be connected to syntactic argument structure is the causative alternation. This can be seen as either the addition or the removal of an external argument to a predicate which otherwise lacks one (see Schäfer 2009: sections 3.1, 3.2 for references to both sides of this debate). In either case, some appeal to syntactic argument structure is clearly of value. Recall, however, that the split intransitive pattern identified by the causative alternation in Basque is not the same as that identified by reference to case.

Similar arguments could also be made for several other phenomena discussed in this article, as well as for phenomena from other languages, though these will not be given here for reasons of space. Repeatedly, it may be observed that connecting split intransitive patterns to syntactic argument structure is of value; however, the semantic approach to split intransitivity, which removes syntax from the picture altogether, fails to do this.

A more appealing possibility is that a more refined understanding of syntactic argument structure is needed. Baker (2018, 2017) adopts an approach similar to that of Ramchand (2008), which allows for multiple argument positions in intransitives (cf. Berro 2012 for a Ramchand-inspired approach to Basque). In brief, it is suggested the thematic domain consists of a hierarchy of functional heads along the following lines (Baker 2017):

(48) The VICTR Hierarchy:

```
                    VolitionP
                   /         \
             Volition      InitiationP
                           /          \
                     Initiation    ConsecutionP
                                   /            \
                            Consecution     TransitionP
                                            /          \
                                      Transition     ResultP
                                                     /      \
                                                 Result     VP
```

Arguments are merged in the specifier positions of these heads; a single argument may be merged in multiple positions. Different configurations interact with different split intransitivity diagnostics in different ways. Hence, the connection between split intransitivity and syntactic argument structure is retained, but it is still possible to account for the fact that multiple sets of verbs are identified by the diagnostics: there are multiple possible argument structure configurations. The reader is referred to chapter 4 of Baker (2017) for discussion of this in relation to Basque in particular; the

rest of that work and Baker (2018) present parallel arguments from split intransitive patterns in other languages including English and Georgian.

6 Conclusion

This article has presented a general discussion of split intransitivity in Basque. It has detailed the semantic basis of the split seen with case, agreement and auxiliary selection (section 3) as well as the nature of the splits identified by various other diagnostics (section 4). On the basis of this, some problems for the Unaccusative Hypothesis of Perlmutter (1978) have been identified (section 5), and an alternative analysis which takes this into account—discussed in more detail in Baker (2017)—has been sketched in overview.

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