

THE SCOPE OF INTRANSITIVITY IN BASQUE

PHYLLIS BELLVER

Attempts to place the language isolate Basque within some typological framework have frequently ended in controversy and terminological confusion. The currently accepted classification of Basque, based on its transparent case-marking system, is that it is an ergative-absolutive language (Dixon 1979, Saltarelli 1988). How well this morphologically-grounded designation holds up at the syntactic and semantic levels of Basque is the larger focus of this paper. The detailed focus is on the behavior of Basque intransitive verbs, and how this behavior synchronizes with the over-all ergative morphology.*

1. SPLIT INTRANSITIVITY. The point of departure for the present investigation is the hypothesis that the occurrence of two types of intransitive verbs is pervasive in world languages, and that this occurrence is expressed either in the morphology or in the syntax, or in both. The initial recognition of a morphological 'split intransitivity' was proposed by Sapir 1917, as he attempted to describe the core argument relations of an American language. Under this definition, certain subjects of 'active' intransitives behave like transitive subjects, while the other subjects, of 'state' intransitives, behave like transitive objects. This intransitive dichotomy was later extended to the syntax and formalized within Relational Grammar by Perlmutter 1978 as the 'Unaccusative Hypothesis'. Here 'unergative' intransitives are seen to syntactically take both deep and surface subjects, while 'unaccusative' intransitives take deep objects which are raised to surface subject position. This hypothesis came about from Perlmutter's observation that impersonal passives of intransitives in Dutch were limited to 'unergatives'.

Perlmutter also attempted a semantic characterization of the split: 'unergatives' would call for active, agentive subjects; 'unaccusatives' would call for patient-like, involuntary, and/or inanimate subjects. This semantic approach was further tested by Rosen 1984; she concluded that a semantic split might not hold cross-linguistically, or ever be inclusive. Rosen did, however, support a syntactic characterization as a more reliable method of documenting the split.

Since then, many languages have been examined for split intransitivity and approaches fall into distinct camps:

- (a) Syntactic characterization is necessary and sufficient (Rosen 1984 for Choctaw etc., Burzio 1986 for Italian).
- (b) Semantic characterization is necessary and sufficient (Van Valin 1989 for Georgian, Italian, Acehnese; Zaenen 1988 for Dutch).
- (c) Syntactic characterization is necessary; semantic characterization is not sufficient, but complementary (Levin 1983 for Basque; Levin & Rappaport 1992 for English; Legendre 1989 for French, 1992 for French, Italian, Dutch).

This study began with the aim of discovering tests that could isolate two types of intransitive verbs in Basque, thereby demonstrating that this language also has split intransitivity. The assumption that split intransitivity existed in Basque was based on the fact that Basque assigns the verb *ukan* 'to have' as an auxiliary to both transitive and, what are in other languages, unergative intransitive verbs (sleep, sing, work, travel).

Note that throughout the text when *ukan* 'to have' occurs as the auxiliary, it will be glossed as AUX U:

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| | | | |
|------|--------------------|-------|---------------------------|
| A | transitive subject | NOM | nominative |
| ABL | ablative | NP | noun phrase |
| ABS | absolutive | O | direct object |
| ACT | active | PART | partitive |
| ADV | adverb | PERF | perfect |
| ALL | allative | p | person(3p = third person) |
| AUX | auxiliary | p. a. | participial adjective |
| DAT | dative | PL | plural |
| DET | determiner | POSS | possessive |
| ERG | ergative | PST | past |
| FUT | future | PURP | purposive |
| GEN | genitive | Q | interrogative particle |
| IMP | imperfect | REL | relativizer |
| INST | instrumental | S | intransitive subject |
| LOC | locative | STAT | state, stative |

- (1) *Zure karta-Ø erantzu-ko dut.*
 your letter-ABS answer-FUT 3.ABS.AUX U.1.ERG
 'I will answer your letter.'
- (2) *Gaur nik eleixa-n abestu dut.*
 today 1.ERG church-LOC sing.PERF 3.ABS.AUX U.1.ERG
 'Today I sang in church.'

Basque assigns another verb, *izan* 'to be,' as the auxiliary for what have become known as traditional unaccusatives in many languages (melt, fall, arrive, snore). Note also that whenever *izan* 'to be' occurs as the auxiliary, it will be glossed as AUX I:

- (3) *Ni arbola-tik jausi nintzen.*
 1.ABS tree-ABL fall.PERF 1.ABS.AUX I.PST
 'I fell from the tree.'

Thus it appeared that split intransitivity would be a simple phenomenon to identify. First, syntactic tests were applied to 115 intransitive Basque verbs, and five of the tests were found to cleanly divide the intransitives into two sets. Then semantic tests were applied to the same verbs, to see how well an explicit semantic analysis could characterize the split; these results were not as revealing. However, closer analysis of the syntactic division brought forth the following conclusions:

- (i) Morphologically, Basque demonstrates no split in its ergative absolutive case-marking (Dixon 1979).
- (ii) However, there is apparently no 'split intransitivity' in Basque either.
- (iii) The intransitive verbs that syntactically tested 'unergative' are, in fact, transitive (as can be demonstrated at the morphological level).
- (iv) Therefore the remaining intransitive verbs only and exactly include the set of verbs that tested 'unaccusative'.
- (v) Hence it is suggested that, instead of a three-way split between 'transitive,' 'unergative,' and 'unaccusative' sets of verbs, a more accurate and economical description for Basque would be a two-way transitive vs. intransitive split, or simply, 'transitives' vs. 'unaccusatives'.
- (vi) On the other hand, certain syntactic phenomena in Basque have been argued to demonstrate nominative-accusative patterns (Anderson 1976), as well as ergative-absolutive relations (Arrieta et al. 1986). The transitive-unaccusative opposition observed here will be claimed to support a strongly ergative characterization of Basque syntax.

No single one of these conclusions necessarily fall outside the limits of expectation for typological classification. However, it is hoped that the observations made here will help, as a package, to disambiguate certain grammatical complexities that have characterized the Basque language since the beginning. The discussion that follows (see §3) will contain a description of the syntactic and semantic tests with more detailed results. The conclusion (see §4) will reiterate the proposed syntactic designation of simple, main-clause verb phrases as ergative-absolutive and recommend that the notion of split 'systems' be reevaluated so as to include the unique organization of Basque.

BASQUE AS AN ERGATIVE LANGUAGE

2.1. TRADITIONAL CLASSIFICATION OF BASQUE. Wilhelm von Humboldt and Hugo Maria Schuchardt were the first scholars who attempted to formally describe the Basque verbal system (Bossong 1984). With little to go on, these early Bascologists hypothesized genetic relations with ancient Iberian, and designated as 'passive' or 'neutral' the mysterious and omnipresent case (realized on both verbs and nominals) later known as 'absolutive'. Dixon (1979:62-63) cites Basque as 'one of the better known examples' of an ergative language, i.e. a language that marks the transitive subject ergative, and (zero-)marks both the transitive object and intransitive subject absolutive. Dixon also distinguishes Basque and the Paleo-Siberian Chukchee as the only two ergative languages known to have 'absolute/ergative case marking on all nominal constituents'.

Basque does not demonstrate any restrictions on ergative-absolutive marking such as person, aspect, subordination, or context, as commonly found in other 'ergative' languages—which make those latter 'split-ergative' systems (Dyirbal, Eastern Pomo, Guarani, Batsbi, the Tibeto-Burman language family etc.) In addition, the nominal ergative-absolutive agreement in Basque is everywhere cross-referenced on the verb, thus allowing it to be a pro-subject and object-drop language.

2.2. BASQUE MORPHOLOGY. As mentioned earlier, every noun (or the last adjective in the string moving out from the right of the noun) carries one of 16 inflecting suffixes—for proper as well as common nouns. Nouns bearing the main argument relations of transitive subject, direct object, and intransitive subject (A, O, and S in Dixon's terms) illustrate the fundamental ergative-absolutive case opposition. Here are examples of absolutive marking on a common noun in 4, which signifies direct objecthood and intransitive subjecthood; the same noun in 5 bears ergative case marking, distinguishing it as a transitive subject.

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|-----|--------------|---|-----------|---|-----------|-----------|
| (4) | <i>gizon</i> | + | <i>-a</i> | + | <i>-Ø</i> | 'the man' |
| | man | | DET | | ABS | |
| (5) | <i>gizon</i> | + | <i>-a</i> | + | <i>-k</i> | 'the man' |
| | man | | DET | | ERG | |

Basque verbs scrupulously cross-reference these argument relations, regardless of tense, aspect, person, or mood. The verbal system is best characterized as periphrastic: every verb is typically accompanied by one of two auxiliaries, traditionally represented by the transitive auxiliary *ukan*, coding for an ergative subject as in 6, or the intransitive auxiliary *izan*, which takes an absolutive subject in 7.

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|-----|----------------------|--------------------|-----------------|-------------------|
| (6) | <i>Nik</i> | <i>musika-Ø</i> | <i>entzuten</i> | <i>du.</i> |
| | 1.ERG | music-ABS | hear.IMP | 3.ABS.AUX U.1.ERG |
| | 'I hear the music.' | | | |
| (7) | <i>Ni</i> | <i>Amerik-etan</i> | <i>bizi</i> | <i>naiz.</i> |
| | 1.ABS | America-LOC | live.PERF | 1.ABS.AUX I |
| | 'I live in America.' | | | |

When intransitives are scrutinized, as in this study, it quickly becomes obvious that some intransitives take *ukan* (8), others *izan* (9):

- | | | | | | |
|-----|--|-------------------|-------------------|-------------|-----------------|
| (8) | <i>Gizon-ak</i> | <i>zurrungatu</i> | <i>du</i> | <i>gabe</i> | <i>guztian.</i> |
| | man-ERG | snore.PERF | 3.ABS.AUX U.3.ERG | all | night |
| | 'The man has snored all night.' | | | | |
| (9) | <i>Lekeitxo-n</i> | <i>barkoa-Ø</i> | <i>hondatu</i> | <i>da.</i> | |
| | Lekeitio-LOC | boat-ABS | sink.PERF | 3.ABS.AUX I | |
| | 'A ship has sunk at Lekeitio (small coastal town in Vizcaya).' | | | | |

And when we refer to 'intransitives,' we are employing the syntactic notion of valency: transitives have a 'valency of two,' or two arguments: subject and object. Intransitives have a 'valency of one,' or one argument: the subject. Further discussion (see §2.4) will challenge the assumption that those intransitive verbs that take *ukan* (unergatives) are indeed intransitive. But for now, we observe what appears to be a typical display of split intransitivity along the lines of that of other languages: auxiliary selection is a hallmark test, cross-linguistically.

However, just as certain languages may be split-ergative, some may also display only a partial split-intransitivity. An unergative-unaccusative distinction may be restricted to particular syntactic constructions (e.g. auxiliary selection and adjectivals in Italian, Burzio 1986; *croire* and *on* constructions in French, Legendre 1989). Occasionally, semantic constraints or overrides are implicated in selected constructions that evidence a split. In Dutch, telicity marks an intransitive split in past participle formation; volitionality is claimed to be the critical factor for impersonal passivization in that language (Zaenen 1988).

Basque is unique, again in its thoroughness: since every verb is always used with an auxiliary, and that auxiliary bears all the basic case relations (A, O, S, and DAT), there are no restrictions on the occurrence of a morpho-syntactic division of intransitives. This ubiquitous cross-referencing must be emphasized as it complements a feature of the language discovered in this study: the fixed nature of the argument relations, and the context-free operation of the periphrastic verb system. This bunching of function into the morphology (16 cases, 900+ auxiliary forms, which together cover every possible person-object-spatial-temporal relation), points to long-term grammaticalization of the ergative-absolutive dichotomy. This diachronic speculation may address to some degree the failure of the semantic tests to characterize the set of intransitive verbs analyzed here.

2.3. ERGATIVE SYNTAX? Now that the ergative morphology of Basque has been illustrated, it is necessary to briefly consider the syntax of Basque. The most revealing tests for split or non-split intransitivity have turned out to be the syntactic ones (auxiliary assignment, partitive assignment, participial adjective restrictions etc.) However, it

has been established that, besides Dyirbal, no ergative language yet described has displayed a fully ergative syntax (Dixon 1979). Basque apparently is no exception; the only controversy is how Basque should then be characterized.

Basque is claimed to have a nominative-accusative syntax by Dixon 1979, Levin 1983, and Saltarelli 1988, yet these three provide no evidence for or discussion of their claims. But Anderson 1976, who also supports a nominative-accusative characterization of the syntax, presents several constructions that demonstrate a syntactic equivalence between transitive and intransitive subjects. One instance occurs in certain Equi-NP-Deletion constructions: where the subordinate construction is purposive, the dependent verbs take a suffix *-tzera* 'in order to', regardless of whether they are transitive or intransitive as in 10 and 11. In addition, a transitive object within the purpose clause can never be taken as coreferent with an intransitive main clause verb, as in 12, again suggesting a nominative-accusative alignment.

- (10) *Dantza-tzera joan da.*
dance-PURP go 3.ABS.AUX I
'He has gone to dance.'
- (11) *Txakur-raren hil-tzera joan da.*
dog-GEN kill-PURP go 3.ABS.AUX I
'He has gone to kill the dog.'
- (12) *Ikus-tera joan da.*
see-PURP go 3.ABS.AUX I
'He has gone to see him/*He has gone for him to see him.' (Arrieta et al. 1986; my gloss)

From such evidence, Anderson concludes that 'the morphology is a misleading indicator of syntactic function' for Basque. Another proponent of a nominative-accusative syntax, Ortiz de Urbina 1985, uses the unaccusative hypothesis to argue against syntactic ergativity. If an unaccusative subject is indeed a deep-structure direct object, then Basque only has a two-way opposition, between subject and object; this is the very definition, then, of a nominative-accusative language. Ortiz illustrates this symmetry as it operates in the morphosyntactic distribution of partitive case. This evidence runs counter to Anderson's conclusion quoted above, in that, for Ortiz, a morphological case can indeed be an indicator of syntactic function. Partitive case replaces absolutive in negative and interrogative expressions, but cannot replace ergative-marked nominals (see §3.13 for further discussion):

- (13) direct object + PART:
Arrain-ik ikusi duzu ibai hone-tan?
fish-PART see 2.ERG.AUX U river this-LOC
'Have you seen any fish in this river?'
- (14) unaccusative subject = direct object + PART:
Gizon-ik atera al du exte horre-tatik?
man-PART go out Q 3.ABS.AUX I house that-ALL
'Has any man come out from that house?'
- (15) transitive subject = PART:
**Pertsona-rik ulertu du nere azalpena-Ø?*
person-PART understand 3.ERG.AUX U my explanation-ABS
'Has anyone understood my explanation?' (Ortiz de Urbina, 149; my gloss)

On the other hand, Arrieta et al. 1986 assert that a nominative-accusative alignment for Basque syntax 'is not realized across all the syntactic patterns of the language' (32). They point out that relative head placement demonstrates a distinction between transitive and intransitive subjects (p. 32; relative clauses underlined; my gloss):

- (16) a. *Bertsolaria-Ø da berto-ak egiten ditu-na-k.*
poet-ABS is poems-ABS.PL make.IMP 3PL.ABS.AUX U-REL-3.ERG
'A poet is one who does poems.'
- b. **Bertsoak egiten ditunak bertsolaria da.*

While a subject who behaves transitively within the relative clause must precede the relative clause, a subject that is intransitive within the relative clause may go before OR after:

- (17) a. *Kantatzen ibilitzen gera-nak bertsolari-ak gera.*
sing.IMP walk.IMP 1PL.ABS.AUX I-REL.PL poets-ABS.PL 1PL.ABS.AUX I
'We who sing are poets.'

b. *Bertsolariak gera kantatzen ibilitzen geranak.*

These arguments for an ergative syntax in Basque are supported by the Unaccusative Hypothesis, in the sense that language-particular constructions that distinguish two sets of intransitives (again, unergatives vs. unaccusatives, such as those patterns found in Georgian, Italian, Turkish etc.), are classified in the literature as evidence of ergativity, rather than accusativity. And the absolutive component of an ergative system displays the unaccusative synonymy of transitive object and intransitive subject.

Such a syntactic operation is at work in Basque intransitives, at the same time that its transitive semantico-syntactic argument relations appear to operate along a nominative-accusative dialectic. This points up how both system cross-cut the language at intersecting points. Neither Anderson nor Arrieta, however, take into account the complementary support of the Unaccusative Hypothesis, while Ortiz de Urbina utilizes the hypothesis to demonstrate that the ergative-absolutive morphology of Basque reflects a simple S/O opposition in the syntax.¹ We shall present an alternative perspective below.

While Arrieta et al. (33) have argued for a 'tripartite division of the core semantico-syntactic relations,' their third category, 'non-ergative,' is disappointingly vague, and leaves Basque no closer to a precise characterization than when the earlier German linguists in their perplexity called Basque 'neutral'. Too many other language systems have been described since then to leave Basque in an unidentified slot on the ergative-accusative continuum. What we propose is that, based on the behavior of matrix transitive and intransitive verbs, a significant subset of the Basque syntax shows itself to be ergative. To illustrate this, some examples from other language systems are in order. In Dyrbal, reputed to demonstrate a truly non-split ergative syntax (at least in the nominals!), we witness the ergative-absolutive distinction (Dixon 1979:61; my gloss):

- (18) *Yabu-Ø* *numa-ngu* *bura-n.*
 mother-ABS father-ERG see-NON.FUT
 'Father sees Mother.'
- (19) *Numa-Ø* *banaga-ñu.*
 father-ABS return-NON.FUT
 'Father comes home.'

In Lakhota, a stative-active language, we see the following alignment (Legendre & Rood 1992:380):

- (20) *Ma-* *yá-* *kte.* 'You kill me.'
 1.STAT 2.ACT kill
- (21) *Ma-* *xwá.* 'I am sleepy.'
 1.STAT am.sleepy
- (22) *Wa-* *psíca.* 'I jumped.'
 1.ACT jump

Thus we see in 19 that Dyrbal does not display split intransitivity—it merely distinguishes the intransitive subject-marked ABS—from the ERG-marked transitive subject. Lakhota, in contrast, is a fine example of a split-intransitive system: some of its intransitives are marked ACT like the transitive subject in 22, others are marked STAT like the transitive object in 21. Basque represents a third system, that combines morphosyntactic elements from two other systems:

- (23) *Nik* *Jon-Ø* *laztandu* *dut.*
 1.ERG John-ABS kiss.PERF 1.ERG.AUX U
 'I have kissed John.'
- (24) *Ni* *ibili* *naiz.*
 1.ABS walk.PERF 1.ABS.AUX I
 'I have walked.'
- (25) *Nik* *korritu* *dut.*
 1.ERG run.PERF 1.ERG.AUX U
 'I have run.'

¹ It has recently come to my attention that Ortiz de Urbina 1989 has re-evaluated partitive assignment as an example of an ergative-absolutive relation, qualifying his earlier assertion that partitive represents a nominative-accusative alignment, and thereby adding support to my claims.

Note that the marking on the intransitive auxiliary in 25 is identical to the transitive one in 23. That is, while there is no surface object in 25, the verb morphology still shows a transitive argument relation. The closest system would be the Lakhota examples 20 and 22, but the unergative intransitive in the Lakhota 22 only carries the ACT inflection, not the ACT-STAT of the transitive. The shared case relations in the Basque 23 and 25 illustrate an issue crucial to this study: the inherent transitivity of unergative verbs in Basque. Again, not only is the unergative subject marked ergative, but the auxiliary reiterates the ergative-absolutive syntactic argument relations, in every case.

We can follow the reasoning of Arrieta et al. (p. 33), when they state that 'the morphology would as likely as not give speakers a ready indicator of the language's syntactic organization, especially when there is no surface syntactic evidence to the contrary'. Thus we can say that, since unergative subjects are marked like transitive subjects and their joint auxiliary *ukan* carries the ergative-absolutive relation, transitives and unergatives may economically form a single category: ergative. The remaining intransitives are exclusively unaccusative, and form a solitary absolutive subject class that is marked in the same fashion as the Lakhota unaccusative example in 21. And together, these two systems can characterize Basque as ergative-absolutive, at least for this one subset of the syntax. This lends support to the claims of a more general ergative syntax for Basque than has been argued in the literature to date.

2.4. A REDEFINITION OF SPLIT INTRANSITIVITY IN BASQUE. In §3 we present syntactic tests that effectively demonstrate a systematic division of intransitive verbs which fulfills the Unaccusative Hypothesis. This hypothesis states, in GB terms, that the single argument of an unergative verb is an external argument, i.e. an underlying (D-structure) subject. And the single argument of an unaccusative verb not an external but rather a direct internal one, i.e. an underlying (D-structure) direct object, moved to subject position by the rule of Move Alpha (Burzio 1986). In other words, an unaccusative subject is a deep direct object that has been transformed into a surface subject, in order to satisfy case theory (for further discussion, see Levin & Rappaport 1992). Besides sharing morphological case, transitive objects and unaccusative subjects are shown to share syntactic properties (partitive assignment, participial adjective formation etc.); their absolutive status is reflected on both the transitive and intransitive auxiliaries.

To take this one step farther, we claim that unaccusative verbs are synonymous with the entire set of true intransitives [those verbs with a 'valence of one,' or those having a single argument]. This leaves us with the smaller body of unergatives: they should also qualify as intransitives, since they too appear with a single surface argument. However, based on an analysis of the data collected, we propose that Basque unergatives are inherently transitive, and review the reasons discussed previously:

- (a) Unergative subjects are marked ergative, as are transitive subjects.
- (b) Unergatives and transitives share the same transitive auxiliary. In other split intransitive systems (Lakhota, Guarani, Batsbi etc.) only the subject status is coded, either on the nominal or the verb. But the Basque transitive auxiliary codes for both ergative subject and absolutive object, everywhere, for both transitives AND unergatives.

This integral transitivity in a subset of apparently intransitive verbs can find its resolution in a diachronic explanation: these verbs are still in transition, and have not achieved the full detransitivization expressed by the unergatives of other languages. Evidence for this diachronic claim can be seen in the discussion of weather verbs and verb phrases in the following sections.

2.41. WEATHER VERBS. 'Weather' verbs in Basque all test 'unergative'.² This class of verbs typologically takes a dummy subject: 'it' rains or 'it' snows. Basque speakers have deified the weather-maker, and God (*Juangoikoak*) is marked ergative. According to the consultants, Basque people generally agree that they used to think more often about God, but it appears that now He (a Catholic god) has been demoted to an understood argument:

(26) *Gabe guztian elurtu du.*
 all night snow.PERF 3.ERG.AUX U
 'It has snowed all night.'

That God is an implicit argument can be seen in this concurrent pattern for describing the weather, where the auxiliary shows the added argument to be an understood agent:

² 'Testing unergative' means 'failing tests for unaccusative'.

- (27) *Euria-Ø egin du.*
 rain-ABS make.PERF 3.ERG.AUX U
 'It has rained (lit., X has made rain).'

2.42. VERB PHRASES. The 115 verbs examined here are simple periphrastics, consisting of a single verb + auxiliary. These verb types were selected over synthetic verbs or 'verb phrases' in order to be able to track the transitive and intransitive auxiliary distribution as simply as possible. However, the most overt evidence in support of the transitivity of unergative verbs comes through the 'verb phrases,' or noun + verb + auxiliary complexes. These constructions are numerous in Basque, and overwhelmingly test unergative. Most verb phrases consist of the base verb 'make' plus a goal or object noun. Thus 'laugh' is *farre egin*, or 'make a laugh'. 'Travel' is *bidea egin*, or 'make a trip', 'lie' is *gezurra esan* or 'speak a lie', etc. These verb phrases may translate into English or Spanish as objectless verbs, when in fact they take a surface object in Basque.

This line of thought was introduced by Levin 1983 and is being pursued by Etxarri, who is investigating a possible continuum of boundedness of the nuclear complement to its verb within the verb phrase (pers. comm.) So, while a 'more' incorporated noun remains a fixed-position uninflected component of the verb phrase, the 'less' incorporated noun can be separated from its verb; it can receive both absolutive and partitive inflection, testifying to its direct objecthood. Here are examples from three stages of such a process of incorporation, showing verb phrases evolving into a simple unergative, whose transitive roots could appear to have been diachronically obscured (see Michun 1991 for discussion of similar processes in American languages).

- (28) path + ABSOLUTIVE:

Iruñe-k bidea-Ø egin du.
 Iruñe-ERG path-ABS make.PERF 3.ERG.AUX U
 'Trinity has made a trip, journey.'

- (29) tear + ZERO, not even DET:

Mikel-ek negar egin du.
 Mikel-ERG tear-Ø make.PERF 3.ERG.AUX U
 'Michael has cried.'

- (30) yet, tear + PARTITIVE:

Mikel-ek ez du negar-rik egin.
 Mikel-ERG NEG 3.ERG.AUX U tear-PART make.PERF
 'Michael has not cried.'

- (31) typical verb phrase:

Errapel-ek dantza-Ø egin du.
 Errapel-ERG dance-ABS make 3.ERG.AUX U
 'Rafael has danced.'

- (32) 31 restructured as single unergative verb:

Errapel-ek dantzatu du.
 Errapel-ERG dance.PERF 3.ERG.AUX U
 'Rafael has danced.'

Ex. 32 is typical of a good number of simple 'unergatives' which are simply verbalized nouns: *korrika egin* to *korritu*, *amets egin* to *amestu*, *zaunka egin* to *zaunkatu*, for 'run', 'dream', and 'bark', respectively. Thus we have illustrated the recent history of many Basque unergatives and how they formerly exhibited (or concurrently exhibit) a surface transitive object. For the remainder of this study, we will refer to one-word unergatives as 'pseudo-transitives': they have been REDUCED to a valence of one. Now we can characterize the entire set of intransitives as containing two subsets: pseudo-transitives, and unaccusatives.

During elicitation, when a verb phrase was offered by the consultants, they were always asked for a one-word verb equivalent, such as the example sets in the paragraph above. And, as emphasized earlier, the 'restructured' verb (Etxarri, pers. comm.) would always take the same auxiliary as the fuller verb phrase did originally. However, one verb displayed a cross-over in auxiliary assignment, going from the transitive auxiliary *ukan* of the verb phrase to the intransitive auxiliary *izan*. It is speculated that this example 34 represents a complete restructuring, being the final stage of the detransitivization shown in examples 28 through 32. It is hoped that further investigation will uncover more instances of this process.

- (33) *Bomba-k kale-an leher egin du.*
 bomb-ERG street-LOC explode.NOM make.PERF 3.ERG.AUX U
 'The bomb has exploded in the street.'

- (34) *Bomba-Ø kale-an leheru da.*
 bomb-ABS street-LOC explode.PERF 3.ABS.AUX I
 'The bomb has exploded in the street.'

TESTS FOR UNACCUSATIVITY

3.1. SYNTACTIC TESTS. Five syntactic tests were run on the 115 Basque intransitive verbs selected for this study, and these tests were found to be necessary or sufficient to diagnose unaccusativity in Basque:

- (a) auxiliary assignment
- (b) interrogative subject pronoun assignment
- (c) partitive assignment
- (d) participial adjective formation
- (e) anti-causatives

The verbs, which appear in English alphabetical order in Tables 1–4, were first tested by asking the consultant to translate an English intransitive sentence into Basque, such as 'John has snored' or 'The boat has sunk.' As can be seen, the format of the elicited sentences varied as little as possible from verb to verb. 'The man' and 'Jon' were the animate subjects of choice, 'boat,' 'train,' and 'water' were favored inanimate subjects. The consultants were asked to write each translated sentence down, with comments concerning restrictions, semantic interpretations etc.

If a verb could take both an animate and inanimate subject, sentences using both were elicited, and if an animate subject was possible, the consultants were asked to again produce the sentence with the addition of *nahita* 'on purpose,' to test for volitionality. In one pass, +/-animacy, +/-volitionality, and auxiliary selection (test number 1) were established. Syntactic tests 2–3 involved substitution of elements in the original sentences: 'Can the subject of "tremble" be replaced by this pronoun, or take the partitive?' Tests 4–5 examined the behavior of the verbs themselves.

3.11. AUXILIARY SELECTION. Auxiliary selection has become a reliable diagnostic for mapping the extent of an intransitive split (see Levin 1983, Burzio 1986, Legendre 1989). This test has proved to work extremely well for Basque, in that for every tense, person, or mood, an auxiliary accompanies its verb, so patterns are quite clean. Results of the test for auxiliary selection in Basque are presented in the first column of Tables 1–2. It was decided to put unaccusatives and pseudo-transitives in separate tables: a single table integrating both sets would muddy the significance of the split. As mentioned earlier, auxiliary choice was determined by elicitation, as with these examples:

- (35) *inmigratu + ukan = Pseudo-transitive*
Gizon-ak Nevada-ra inmigratu du.
 man-ERG Nevada-ALL immigrate.PERF 3.ERG.AUX U
 'The man has immigrated to Nevada.'
- (36) *hil + izan = Unaccusative*
Gizona-Ø bat batean hil da.
 man-ABS at once die.PERF 3.ABS.AUX I
 'The man has suddenly died.'

The significance of the split is just this: after vigorous cross-checking ('Can you ever use the other auxiliary?' etc.), we came to realize the fixed nature of auxiliary assignment, and how basic it was as an indicator of unaccusative vs. pseudo-transitive sets. Verbs did not switch auxiliary based on aspect, animacy, volitionality, speaker affect, or discourse context.³ Thus the two subsets appear in separate tables for both the syntactic and semantic tests.

³ Only four verbs took either auxiliary intransitively and thus appear starred on both lists. The semantic motivation of volitionality seems to be involved in these rare examples with *amaitu* 'to finish':

- a. *Gizon-ak lane-an amaitu du.*
 man-ERG work-LOC finish.PERF 3.ABS.AUX U
 'The man has finished working.'
- b. *Filma amaitu da.*
 film.ABS finish.PERF 3.ABS.AUX I
 'The movie has finished.'

| | | UKAN | NORK | PART | P.A. | A-C |
|---------------|-------------|------|------|------|------|-----|
| amestu | dream | + | + | - | - | - |
| arnarsartu | breathe | + | + | - | - | - |
| bazilatu | flirt | + | + | - | - | - |
| biratu | turn | + | + | - | - | - |
| dantzatu | dance | + | + | - | - | - |
| dardarikatu | tremble | + | + | - | - | - |
| distiratu | shine, glow | + | + | - | - | - |
| eboluzionatu | develop | + | + | - | - | - |
| egunargitu | dawn | + | + | - | - | - |
| ehizutu | hunt | + | + | - | - | - |
| ekaiztu | storm | + | + | - | - | - |
| elurtu | snow | + | + | - | - | - |
| erre | smoke | + | + | - | - | - |
| erreakzionatu | react | + | + | - | - | - |
| flotatu | float | + | + | - | - | - |
| funtzionatu | function | + | + | - | - | - |
| herrenkatu | limp | + | + | - | - | - |
| hobetu* | improve | + | + | - | - | - |
| irakin | boil | + | + | - | - | - |
| iraun | last | + | + | - | - | - |
| jarraitu | continue | + | + | - | - | - |
| korritu | run | + | + | - | - | - |
| loditu* | gain weight | + | + | - | - | - |
| mehetu* | lose weight | + | + | - | - | - |
| migratu | migrate | + | + | - | - | - |
| oihukatu | cry | + | + | - | - | - |
| orrokatu | roar | + | + | - | - | - |
| saltatu | jump | + | + | - | - | - |
| sufritu | suffer | + | + | - | - | - |
| usaindu | smell | + | + | - | - | - |
| xuxurlatu | whisper | + | + | - | - | - |
| zaunkatu | bark | + | + | - | - | - |
| zurrungatu | snore | + | + | - | - | - |

TABLE 1. Syntactic tests for pseudo-transitives. Key for Tables 1-2:

| | |
|-------|--|
| UKAN | = takes transitive auxiliary <i>ukan</i> |
| IZAN | = takes intransitive auxiliary <i>izan</i> |
| NORK | = allows ergative interrogative subject pronoun |
| NOR | = allows absolutive interrogative subject pronoun |
| PART | = allows partitive assignment of subject |
| P. A. | = can function as participial adjective |
| A-C | = is anti-causative alternate of transitive original |

Judgements for Tables 1-4: + = acceptable; +? = marginally OK; ? = questionable; -? = doubtful; - = unacceptable.

Again, one might have expected to see the choice of auxiliary parallel a semantic shift from volitional *ukan* to non-volitional *izan* with the same verb, but the 115 verbs were aggressively tested for this very distinction, and even though the qualifier *nahita* 'on purpose' could be added to the context of an unaccusative construction (taking *izan*), a change to the other auxiliary option (*ukan*) was refused. Thus sentences like 37 had imposed on them an added dimension of agency in 38, but the auxiliary choice did not change. This implies a long-term grammaticalization of the pseudo-transitive—unaccusative distinction:

- (37) *Gizona-Ø berta-ko taberna-n mozkortu da.*
 man-ABS nearby-POSS bar-LOC get.drunk 3.ABS.AUX I
 'The man has got drunk in the local bar.'
- (38) *Gizona-Ø nahita mozkortu da bere arazo-ak ahaz-teko.*
 man-ABS on purpose get.drunk 3.ABS.AUX I his problem-ABS.PL forget-in.order.to
 'The man has got drunk on purpose, to forget his problems.'

3.12. INTERROGATIVE (WH) SUBJECT PRONOUN ASSIGNMENT. A second syntactic test for split intransitivity in Basque is quite simple, and was hit upon during discussions with the consultant about Basque morphology: will there be a split pronoun distinction that patterns like the verbal split? Results demonstrate a 100%

correspondence between ERG WH subject pronoun *nork* and pseudo-transitive verb, and between ABS WH subject pronoun *nor* and unaccusative verb, thus completely supporting the split established by auxiliary assignment. The results for the pseudo-transitive WH pronoun assignment may be seen in the second column of Table 1; for the unaccusatives, the second column of Table 2.

Before examples for this test are provided, key terms from Basque grammar will be introduced to illustrate the omnipresence of the ergative-absolutive distinction, and how this test reflects both deep and surface syntax:

| | | | |
|------|--------------|---|--------------|
| (39) | <i>nork</i> | = | ERG |
| | <i>nor</i> | = | ABS, animate |
| | <i>nori</i> | = | DAT |
| | <i>zerik</i> | = | PART |

WH subject and object pronouns are the same items as the grammar terms they represent interrogatively and relatively:

| | | | |
|------|-------------|---|---------------------------------------|
| (40) | <i>nork</i> | = | Who? ERG subject, animate |
| | <i>zerk</i> | = | What? ERG subject, inanimate |
| | <i>nor</i> | = | Who? ABS subject, animate |
| | | = | Whom? ABS direct object, animate |
| | <i>zer</i> | = | What? ABS subject, inanimate |
| | | = | What? ABS direct object, inanimate |
| | <i>nori</i> | = | To whom? DAT indirect object, animate |

The occurrence of these interrogative pronouns can illustrate the distribution of two distinct syntactic subjects, as well as the shared form between unaccusative subject and transitive direct object, thereby supporting the Unaccusative Hypothesis.

| | | | | |
|------|-------------|-----------------------------|-------------|------------------|
| (41) | <i>Nork</i> | <i>xuxurlatu</i> | <i>du.</i> | |
| | who.ERG | whisper.PERF | 3.ERG.AUX U | |
| | | 'Who has whispered?' | | |
| (42) | <i>Nor</i> | <i>ikusi</i> | <i>du</i> | <i>gizona-k.</i> |
| | whom.ABS | see.PERF | 3.ERG.AUX U | man-ERG |
| | | 'Whom has the man seen?' | | |
| (43) | <i>Nor</i> | <i>sartu</i> | <i>di</i> | <i>gela-n.</i> |
| | who.ABS | enter.PERF | 3.ABS-AUX I | room-LOC |
| | | 'Who has entered the room?' | | |

3.13. PARTITIVE (ZERIK) ASSIGNMENT. Levin 1983 has shown that partitive case assignment in Basque is restricted along similar lines as other languages displaying split intransitivity (Italian, Russian). The *zerik* case, as it is known in Basque grammar, can be substituted for the absolutive-marked subject or transitive direct object in negative, interrogative, exclamatory and conditional constructions. First an affirmative transitive sentence is given, then a negative treatment of the same basic sentential elements.

| | | | | | |
|------|-----------------|------------------------------------|--------------|----------------|---------------|
| (44) | <i>Gizona-k</i> | <i>ogia-Ø</i> | <i>erosi</i> | <i>du.</i> | |
| | man-ERG | bread-ABS | buy.PERF | 3.ERG.AUX U | |
| | | 'The man has bought (some) bread.' | | | |
| (45) | <i>Gizona-k</i> | <i>ez</i> | <i>du</i> | <i>ogi-rik</i> | <i>erosi.</i> |
| | man-ERG | NEG | 3.ERG.AUX U | bread-PART | buy.PERF |
| | | 'The man hasn't bought any bread.' | | | |

All verbs that tested unaccusative via auxiliary selection had absolutive-marked subjects, and indeed these same subjects could every one of them be substituted by the *zerik* case:

| | | IZAN | NOR | PART | P.A. | A-C |
|--------------|------------------|------|-----|------|------|-----|
| agertu | appear | + | + | + | + | - |
| aldatu | change | + | + | + | + | + |
| amaitu* | finish | + | + | + | - | + |
| atera | leave | + | + | + | + | + |
| atsedendu | rest, relax | + | + | + | + | - |
| atzeratu | retreat, be late | + | + | + | + | - |
| aurreratu | advance | + | + | + | + | + |
| azalzuritu | peel | + | + | + | + | + |
| beldurtu | be scared | + | + | + | + | + |
| bigundu | soften | + | + | + | + | + |
| bilakatu | become | + | + | + | + | - |
| bizi | live | + | + | + | + | - |
| busti | get wet | + | + | + | + | + |
| desagertu | disappear | + | + | + | + | - |
| egon | remain, stay | + | + | + | - | - |
| erori | fall | + | + | + | + | + |
| erre | burn, cook | + | + | + | + | + |
| errekuperatu | recover | + | + | + | + | - |
| eseri | sit down | + | + | + | - | - |
| esnatu | wake up | + | + | + | + | + |
| etorri | come | + | + | + | - | - |
| etzan | lie down | + | + | + | - | - |
| ezkondu | marry | + | + | + | + | + |
| gaisotu | get sick | + | + | + | + | - |
| galdu | get lost | + | + | + | + | + |
| gehitu | increase | + | + | + | - | + |
| gelditu | stop | + | + | + | - | + |
| gertatu | happen, result | + | + | + | + | - |
| gogortu | harden | + | + | + | + | + |
| gorritu | blush | + | + | + | + | - |
| gutxitu | decrease | + | + | + | - | + |
| harritu | be surprised | + | + | + | + | + |
| hasi | begin | + | + | + | + | + |
| hautsi | break | + | + | + | + | + |
| hazi | get bigger | + | + | + | + | + |
| heldu | arrive, mature | + | + | + | + | + |
| hil | die | + | + | + | + | + |
| hobetu* | improve | + | + | + | + | + |
| hondoratu | sink | + | + | + | + | + |
| hoztu | get cold | + | + | + | + | + |
| ibili | walk | + | + | + | + | - |
| igo | go up, climb | + | + | + | - | - |
| ilundu | get dark | + | + | + | + | - |
| ireki | open | + | + | + | ? | - |
| ito | drown, strangle | + | + | + | + | + |
| itxi | close | + | + | + | + | + |
| itzuli | return | + | + | + | + | + |
| izan | be | + | + | + | - | - |
| izkutatu | hide | + | + | + | + | + |
| jaio | be born | + | + | + | + | + |
| jaitsi | go down | + | + | + | - | + |
| jelatu | freeze | + | + | + | + | + |
| joan | go | + | + | + | + | - |
| jolastu | play | + | + | + | - | - |
| jubilatu | retire | + | + | + | + | + |
| kezkatu | be worried | + | + | + | + | - |
| lasaitu | calm down | + | + | + | + | + |
| lehertu | explode | + | + | + | + | + |
| lehortu | dry | + | + | + | + | + |
| loditu* | gain weight | + | + | + | + | - |

TABLE 2 (continued on next page)

| | | IZAN | NOR | PART | P.A. | A-C |
|---------------------|--------------|------|-----|------|------|-----|
| <i>lurrindu</i> | evaporate | + | + | + | + | + |
| <i>maitemindu</i> | fall in love | + | + | + | + | - |
| <i>mebetu*</i> | lose weight | + | + | + | + | - |
| <i>mindu</i> | ache | + | + | + | + | + |
| <i>mintzatu</i> | speak | + | + | + | + | - |
| <i>mozkortu</i> | get drunk | + | + | + | + | + |
| <i>moztu</i> | get cut | + | + | + | + | + |
| <i>mugitu</i> | move | + | + | + | - | + |
| <i>nahastu</i> | be confused | + | + | + | + | + |
| <i>prestatu</i> | get ready | + | + | + | - | + |
| <i>saiatu</i> | try | + | + | + | - | - |
| <i>sartu</i> | enter | + | + | + | + | + |
| <i>txirristatu</i> | slip, slide | + | + | + | - | - |
| <i>urduritu</i> | get nervous | + | + | + | + | - |
| <i>urtu</i> | melt | + | + | + | + | + |
| <i>zahartu</i> | get old | + | + | + | + | + |
| <i>zimurtu</i> | wrinkle | + | + | + | + | + |
| <i>zintzilikatu</i> | hang | + | + | + | + | + |

TABLE 2. Syntactic tests for unaccusatives. Key as for Table 1.

- (46) *Gizon bat-Ø Itziar-ez maitemindu da.*
 man one-ABS Itziar-INST fall in love 3.ABS.AUX I
 'A man has fallen in love with Itziar.'
- (47) *Itziar-ez ez du gizon-ik maitemindu.*
 Itziar-INST NEG 3.ABS.AUX I man-PART fall in love.PERF
 'No man has fallen in love with Itziar.'

However, an ergative-marked subject that was the single surface participant of a sentence could under no circumstances take a *zerik* case substitution, thereby excluding every verb resulting pseudo-transitive by auxiliary selection:

- (48) *Gizon eder bat-ek Maite-kin dantzatu du.*
 man handsome one-ERG Maite-CON dance 3.ERG.AUX U
 'A handsome man has danced with Maite.'
- (49) **Maite-kin ez du gizon-ik dantzatu.*
 Maite-CON NEG 3.ERG.AUX U man-PART dance.PERF
 'No man has danced with Maite.'

3.14. PARTICIPIAL ADJECTIVES. A syntactic test uncovered by my investigation is seen to be a successful diagnostic for split intransitivity: participial adjective formation constraints. Apparently, across languages many unaccusatives can form participial adjectives, while unergatives as a body cannot. In Basque the participial adjective is formed by suffixing the DET inflection *-a* onto the citation form of the verb. This inflection would occur to any type of adjective occurring phrase-final in an absolutive noun phrase: N + [ADJ + DET + ABS (Ø) case markings].

While a non-derived adjective in an ergative NP would also carry the ERG inflection for its noun, a participially-formed adjective cannot be ergatively inflected. Neither can the subject of a pseudo-transitive verb bear absolutive inflection, thus effectively outlawing participialization of all Basque pseudo-transitives (as shown in column 4 of Table 1).

- | | UNACCUSATIVE SUBJECT | | PSEUDO-TRANSITIVE SUBJECT |
|------|--|------|--|
| (50) | a. <i>gizon iritxi-a-Ø</i> man arrived-DET-ABS 'the arrived man' | (51) | a. <i>*gizon korritu-a-Ø</i> man run-DET-ABS 'the run man' |

- b. *gizon ezkondu-a-Ø*
 man got.married-DET-ABS
 'the married man'
- b. **gizon korritu-a-k*
 man run-DET-ERG
 'the run man'

Participialization of unaccusatives is productive in Basque, while sounding ungrammatical in English. We would easily accept the semantic content of 50a in English, were it to appear in a relative clause: 'the man who arrived'. This, of course, also works in Basque:

- (52) *iritxi d-en gizona*
 arrive.PERF [izan + REL] man.ABS
 'the man who has arrived'

While its use as an adjective is disallowed in 51a-b, a pseudo-transitive can appear without restrictions in a relative construction.⁴

- (53) a. *dantzatu du-en gizona-Ø*
 dance.PERF [ukan + REL] man-ABS
 'the man who has danced'
- b. **gizon dantzatu-a*
 man danced-DET
 'the danced man'

Of course, verbs that appear on the pseudo-transitive list of Table 1 may function as adjectives, but only transitively:

- (54) a. *aragi erre-a* 'the smoked meat' (not 'the meat that smoked')
 meat smoked-DET
- b. *mendi elurtu-a* 'the snow-covered mountain' (not 'the mountain that snowed')
 mountain snowed-DET

Seventeen unaccusative verbs failed the participial adjective test, as they were given a '-' judgement (with one '?' judgement). They are listed below, in English, and defy a semantic commonality that would explain their rejection by the consultant. Some of these verbs could be 'typed' semantically as states or verbs of motion (see Levin & Rappaport 1992), but this does not explain why other unaccusatives that could be similarly typed were not rejected for participialization: happened, lived, arrived, closed, fallen etc.⁵

- (55) remained come
 left got-ready
 decreased played
 increased tried
 gone-up moved
 gone-down slid
 opened stopped
 been
 sat-down ('seated' not conveyed by participial adjective)
 lain-down ('lying-down' not conveyed by participial adjective)

3.15. ANTI-CAUSATIVES. As the consultant Etxarri explains, when a verb, any verb, is used with the intransitive auxiliary (*izan*), it is being used in the unaccusative sense. Levin 1983 terms the transitive-unaccusative bond in Basque an 'anti-causative alternation' which 'is found with the same types of verbs as in other languages: verbs of change of state as well as verbs of emotional reaction' (134; my gloss). Unfortunately, she only provides one verb, 'open,' to illustrate this phenomenon:

⁴ Note the de-ergativization of the relativized subject. Etxarri explains that this subject 'de-transitivization' takes place in every dependent clause structure.

⁵ For the same test with French unaccusatives, these verbs rejected for participialization in Basque were completely acceptable in French. This is evidence of the cross-linguistic variation for membership in diagnostic syntactic constructions (pers. comm., Geraldine Legendre).

- (56) *Miren-ek atea-Ø ireki du.*
 Maria-ERG door-ABS open 3.ERG.AUX U
 'Miren has opened the door.'
- (57) *Atea-Ø ireki da.*
 door-ABS open 3.ABS.AUX I
 'The door has opened.'

It is demonstrated that an anti-causative alternation, while not thorough enough to function as a necessary test for identifying unaccusatives, was sufficient to characterize 68% of them, while excluding 100% of the pseudo-transitives, as shown in column 5 of Tables 1-2. Thus the anti-causative alternation is seen as additional support for the Unaccusative Hypothesis: the causative counterpart of the anti-causative 'open' takes the subject of 57 as its direct object in 56, thereby testifying to the deep objecthood of that unaccusative subject.

Here are examples of anti-causatives as elicited from Itziar Guenaga, which illustrate the 'kill'/'die,' 'sink'/'sink' alternations. This consultant's Vizkaian dialect reveals word boundaries, auxiliary forms, spelling, etc., distinct from those of the Gipuzkoan dialect of the other consultant.

- (58) *Catu-ek txoria-O hil dau.*
 cat-ERG bird-ABS kill.PERF 3.ERG.AUX U
 'The cat has killed the bird.'
- (59) *Gizona-O bakar-bakar-rik hil-san.*
 man-ABS alone-alone-ADV die-3.ABS.AUX I.PST
 'The man died all alone.'
- (60) *Temparli-ek barkue-Ø onda-tuban.*
 storm-ERG boat-ABS sink-3.ERG.AUX U.PST
 'The storm sank the boat.'
- (61) *Barkue-Ø onda-tude.*
 boat-ABS sink-3.ABS.AUX I.PST
 'The boat sank.'

Pseudo-transitive subjects, as defined by the Unaccusative Hypothesis, are deep as well as surface subjects, and therefore cannot participate in object/subject alternations. And pseudo-transitive verbs cannot express a causative/anti-causative alternation through auxiliary substitution, due to the fixed nature of auxiliary assignment (see Table 6).

- (62) *Nik abestia-Ø abestu dut.*
 1.ERG song-ABS sing.PERF 1.ERG.AUX U
 'I have sung the song.'
- (63) *Nik abestu dut.*
 1.ERG sing.PERF 1.ERG.AUX U
 'I have sung.'
- (64) **Abestia-Ø abestu da.*
 song-ABS sing.PERF 3.ABS.AUX I
 'The song has sung.'

3.2. SEMANTIC TESTS. After our Basque verbs had been submitted to the syntactic tests of §3.1 and analyzed for results, they were then examined along seven semantic parameters. It was hoped that the unaccusative/pseudo-transitive distinction could be characterized via semantic properties, thus obviating the need for a multi-stratal syntactic characterization:

- (65) a. Aspectual tests
 i. Can be used in the progressive aspect
 ii. Can take adverb of manner
 iii. Telic subset
 a'. Can do X for an hour, spend an hour doing X
 b'. Can do X in an hour, take an hour to do X
- b. Animacy
 c. Volitionality
 d. Punctuality

The results can be seen in Table 3 for pseudo-transitives, and Table 4 for unaccusatives. The same judgement calls (+, - etc.) were applied to the semantic tests as to the syntactic. The analysis of results is two-step: determine if any one factor or any combination of factors can pinpoint a semantic motivation for the intransitive verb split; compare these results to the results of the syntactic tests, to see if any are complementary across domains.

It must be noted that we discovered a definite disjunction between the syntactic and the semantic investigations of unaccusativity. As Grimshaw (1987:9) expresses it, 'By and large, work exploring the semantics of unaccusativity has focused on the question of how the class of unaccusatives is DEFINED, whereas work exploring the the syntax has focused on how the verbs BEHAVE.' Thus the syntactic data has been gathered a sentence at a time, elicited within a context of a VP and external arguments. A semantic approach favors discussion of the verbs in citation form, and how they fit in ad-hoc or post-hoc classes.

Be that as it may, the semantic tests as a whole failed to characterize unaccusativity in any clear fashion, or explain mismatches. Therefore, a detailed discussion of the failure to uncover a pattern of semantic motivation(s) is vital to this investigation, in order to demonstrate that a multi-stratal syntactic characterization of unaccusativity is, by default, NECESSARY for Basque, while an explicit semantic characterization appears to be, at best, complimentary (see §3.22 on telicity).

The aspectual tests were taken from Role and Reference Grammar (Van Valin 1990), and results can be seen in the first five columns of Tables 3 and 4. These tests purport to distinguish four classes of verbs: states (e.g. know, have, believe); accomplishments (e.g. teach, kill, give); activities (e.g. run, rain, swim); achievements (e.g. learn, die, melt). These four verb classes were suggested by Vendler 1967.

Eleven semantic tests were developed by Dowty (1979:60) to isolate Vendler's four classes, for example, 'John (verbed) for an hour, which meant that he (verbed) at all times within that hour,' and the like. These tests were adopted and reduced to four by Van Valin, who claims that semantics is all that is necessary to characterize split intransitivity; multi-stratal syntactic analyses are, for him, superfluous. The key semantic factors for Van Valin 1990 are 'agentivity and inherent lexical aspect (Aktionsart)'.

The aspectual tests claim to parcel verbs this way:⁶

- (66) a. States (S) are transitive or intransitive.
- b. Accomplishments (C) are transitive.
- c. Activities (A) are transitive or pseudo-transitive (unergative for Van Valin).
- d. Achievements (H) are transitive or unaccusative.

3.21. OVERALL RESULTS. Based on this claim, the categories we would hope to isolate for our purposes would be activities and achievements (A and H verbs). How each verb fared is seen in the fifth, 'ID', column of the tables: a letter designation signifies that the verb was identified via the tests; a blank space in the column signifies that the tests failed to identify that verb. See the overall results in Table 5.

Only 62% of the verbs were identified via the aspectual tests. The remainder, 38%, failed to fall into one of the four test patterns established by Van Valin. However, the unidentified verbs did fall into one or another of several alternative patterns (+ - + -, etc.) that seem to call out for categories of their own.

3.22. ASPECT AND AUXILIARY SELECTION. Let us review the list of syntactic tests to see what they were able to accomplish:

- (67) a. Aux selection: identified pseudo-transitives and unaccusatives.
- b. Interrogative pronoun assignment: identified pseudo-transitives and unaccusatives.
- c. Partitive assignment: identified unaccusatives only.
- d. Participial adjectives: identified unaccusatives only.
- e. Anti-causatives: identified unaccusatives only.

It should be remembered that results for syntactic tests one through three were in 100% accord, so they will be lumped together under the term 'auxiliary selection'. Tests four and five will be examined against aspect separately.

| 6 The four criteria (or tests): | S | C | A | H |
|--|-----|-----|-----|-----|
| 1. Occurs with progressive | no | yes | yes | yes |
| 2. Occurs with adverbs of manner | no | yes | yes | no |
| 3. Occurs for an hour, spend an hour doing X | yes | yes | yes | no |
| 4. Occurs in an hour, takes an hour to do X | no | yes | no | yes |

| | | ASPECTUAL TESTS | | | | | | | |
|---------------|-------------|-----------------|-----|----------|----|----|------|-----|------|
| | | | | TELICITY | | | | | |
| | | PROG | ADV | FOR | IN | ID | ANIM | VOL | PUNC |
| abestu | sing | + | + | + | + | C | + | + | - |
| amaitu* | finish | + | + | - | + | | + | + | ? |
| amestu | dream | + | + | + | + | C | + | - | + |
| arnarsartu | breathe | + | + | + | + | C | + | +/- | + |
| bazilatu | flirt | + | + | + | - | A | + | + | - |
| biratu | turn | + | - | + | - | A | +/- | +/- | + |
| dantzatu | dance | + | + | + | + | C | + | + | - |
| dardarikatu | tremble | + | - | + | - | | + | - | - |
| distiratu | shine | + | + | + | - | A | - | - | - |
| eboluzionatu | develop | + | + | + | - | A | - | - | - |
| egunargitu | dawn | + | - | + | - | | - | - | +? |
| chizutu | hunt | + | + | + | + | C | + | + | - |
| ekaiztu | storm | + | - | + | + | | - | - | -? |
| erreakzionatu | react | + | -? | - | + | H | + | ? | + |
| flotatu | float | + | + | + | - | A | +/- | - | - |
| funtzionatu | function | + | - | + | + | | - | - | - |
| herrenkatu | limp | + | + | + | + | C | + | +? | - |
| hobetu* | improve | + | + | + | - | A | + | + | ? |
| irakin | hoil | + | - | + | + | | - | - | - |
| iraun | last | + | - | + | - | | +/- | -? | - |
| jarraitu | continue | + | + | + | - | A | +/- | -? | - |
| korritu | run | + | + | + | + | C | + | + | - |
| loditu* | gain weight | + | + | + | + | C | + | + | - |
| mehetu* | lose weight | + | + | + | + | C | + | + | - |
| migratu | migrate | + | + | + | - | A | + | + | + |
| oihukatu | cry | + | + | + | - | A | + | -? | + |
| orokatu | roar | + | + | + | - | A | + | +? | + |
| saltatu | jump | + | - | + | + | | + | - | - |
| usaindu | smell | + | - | + | - | | +/- | - | - |
| xuxurlatu | whisper | + | + | + | + | C | + | + | +? |
| zaunkatu | bark | + | + | + | - | A | + | +? | + |
| zurungatu | snore | + | - | + | - | | + | - | + |

TABLE 3. Semantic tests for pseudo-transitives. Key for Tables 3-4:

| | | |
|------|---|---|
| PROG | = | OK in progressive aspect |
| ADV | = | OK with adverb of manner |
| FOR | = | OK to do X "for an hour" |
| IN | = | OK to do X "in an hour" |
| ID | = | passes aspectual tests: S is stative verb; C is accomplishment verb; A is activity verb; H is achievement verb. |
| ANIM | = | animate only (metaphor rare) |
| VOL | = | allows volitional reading |
| PUNC | = | punctual, not durative |

For Table 6, we are hoping to find a semantic distinction that can characterize the unaccusative—pseudo-transitive dichotomy as exhaustively as can the first three syntactic tests. If we examine the positive identifications in Table 6, we can see that a slightly higher percentage of pseudo-intransitives were identified than unaccusatives. The fact that as many pseudo-intransitive were rated accomplishment as were rated activity should not be surprising. Accomplishments (C) are classed by Van Valin as transitives, thus these high results constitute support for our claim that pseudo-transitives are still transitive.

Still, 32% of pseudo-transitives (as identified through auxiliary selection) were not identifiable aspectually, added to the fact that one pseudo-transitive, 'react,' tested as an achievement (a predictor of unaccusativity). If we examine the unaccusatives (as identified through auxiliary selection), we find much the same situation: 41% are unidentified aspectually, and there are mismatches: the unaccusative 'play' tests as an activity, 'speak' as an accomplishment, both transitive categories according to Van Valin.

3.22. TELICITY. If we isolate the two aspectual tests that focus precisely on telicity, we may derive different figures (see Table 7). The atelic 'for-an-hour' test results appear in column 3 of the tables; the telic 'in-an-hour' test

| | | ASPECTUAL TESTS | | | | | | | |
|--------------|-------------|-----------------|-----|-----------------|----|----|------|-----|------|
| | | PROG | ADV | TELICITY FOR | IN | ID | ANIM | VOL | PUNC |
| agertu | appear | + | + | - | + | | +/- | + | + |
| aldatu | change | + | + | - | + | | +/- | + | + |
| amaitu* | finish | + | + | - | + | | + | - | + |
| atera | leave | + | + | - | + | | +/- | + | + |
| atsedendu | rest, relax | + | + | - | + | | + | + | - |
| atzeratu | retreat | + | + | - | + | | - | ? | + |
| azalzuritu | peel | + | - | - | + | H | - | - | ? |
| beldurtu | be scared | + | - | - | + | H | + | - | + |
| berotu | warm up | + | + | - | + | | +/- | - | - |
| bigundu | soften | + | - | - | + | H | - | - | - |
| bilakatu | become | + | - | - | + | H | +/- | + | - |
| bizi | live | + | -? | - | + | H | + | ? | - |
| busti | get wet | + | - | - | + | H | +/- | + | + |
| desagertu | disappear | + | - | - | + | H | +/- | ? | + |
| dibortziatu | divorce | + | + | - | + | | + | + | +? |
| egon | remain | - | + | - | + | | +/- | + | - |
| erori | fall | + | - | - | + | H | +/- | +? | + |
| erre | burn | + | - | - | + | H | +/- | - | + |
| errekuperatu | recover | + | - | - | + | H | + | + | - |
| eseri | sit down | + | + | - | + | | + | + | + |
| esnatu | wake up | + | - | - | + | H | + | + | + |
| etorri | come | + | + | - | + | | + | + | - |
| etzan | lie down | -? | + | - | + | | + | + | + |
| ezkondu | marry | + | + | - | + | | + | + | +? |
| gaisotu | get sick | + | - | - | + | H | + | - | + |
| galdu | get lost | + | -? | - | + | H | + | +? | + |
| gehitu | increase | + | - | - | + | H | - | - | - |
| gelditu | stop | + | + | - | + | | +/- | + | + |
| gertatu | happen | + | - | - | + | H | - | - | + |
| gogortu | harden | + | - | - | + | H | - | - | - |
| gorritu | blush | + | - | - | + | H | +/- | - | + |
| gutxitu | decrease | + | - | - | + | H | - | - | ? |
| harritu | surprised | + | - | - | + | H | + | - | + |
| hasi | begin | + | + | - | + | | +/- | + | + |
| hautsi | break | + | - | - | + | H | - | - | + |
| hazi | get bigger | + | + | - | + | | +/- | - | - |
| heldu | arrive | + | + | - | + | | +/- | ? | - |
| hil | die | + | - | - | + | H | +/- | ? | + |
| hobetu* | improve | + | - | - | + | H | +/- | - | - |
| hondoratu | sink | + | - | - | + | H | - | - | + |
| hoztu | get cold | + | - | - | + | H | +/- | - | - |
| ibili | walk | + | + | - | + | | + | + | - |
| igo | go up | + | + | - | + | | + | + | + |
| ilundu | get dark | + | - | - | + | H | - | - | +? |
| ireki | open | + | - | - | + | H | - | - | + |
| isuri | spill | + | - | - | + | H | - | - | + |
| ito | drown | + | - | - | + | H | + | - | + |
| itxi | close | + | - | - | + | H | - | - | + |
| itzuli | return | + | + | - | + | | + | + | + |
| izan | be | + | + | - | + | | +/- | -? | ? |
| izkutatu | hide | + | + | - | + | | + | + | + |
| jaio | be born | + | - | - | + | H | + | - | -? |
| jaitsi | go down | + | + | - | + | | + | - | + |
| jelatu | freeze | + | - | - | + | H | +/- | - | - |
| joan | go | + | + | - | + | | +/- | + | + |
| jolastu | play | + | + | + | + | C | + | + | - |
| jubilatu | retire | + | + | - | + | | + | + | + |
| kezkatu | be worried | + | + | - | + | | + | ? | - |
| lasaitu | calm down | + | + | - | + | | +/- | + | + |

TABLE 4 (continued on next page)

| | | ASPECTUAL TESTS | | | | | | | |
|--------------|--------------|-----------------|-----|----------|----|----|------|-----|------|
| | | | | TELICITY | | | | | |
| | | PROG | ADV | FOR | IN | ID | ANIM | VOL | PUNC |
| lehertu | explode | + | - | - | + | H | +/- | - | + |
| lehortu | dry | + | - | - | + | H | +/- | + | +? |
| loditu* | gain weight | + | - | - | + | H | + | - | ? |
| lurrindu | evaporate | + | - | - | + | H | - | - | - |
| maitemindu | fall in love | ? | +? | - | + | + | + | ? | - |
| mehetu* | lose weight | + | - | - | + | H | + | - | +? |
| mindu | ache | + | - | - | + | H | - | - | +? |
| mintzatu | speak | + | + | + | - | A | + | + | - |
| mozkortu | get drunk | + | -? | - | + | H | + | ? | - |
| moztu | get cut | + | - | - | + | H | +/- | - | + |
| mugitu | move | + | + | - | + | + | +/- | + | + |
| nahastu | confused | + | - | - | + | H | + | - | -? |
| prestatu | get ready | + | + | - | + | + | + | + | - |
| saiatu | try | + | + | - | + | + | + | + | - |
| sartu | enter | + | + | - | + | + | +/- | + | + |
| txirristatu | slip | + | - | - | + | H | +/- | - | + |
| urduritu | get nervous | + | - | - | + | H | + | - | - |
| urtu | melt | + | - | - | + | H | - | - | +? |
| zabartu | get old | + | - | - | + | H | + | - | - |
| zimurtu | wrinkle | + | - | - | + | H | +/- | - | - |
| zintzilikatu | hang | + | - | - | + | H | - | - | - |

TABLE 4. Semantic tests for unaccusatives. Key as for Table 3.

results appear in column 4. Atelicity should correspond to the activity class of verbs, which in turn should correspond to the pseudo-transitive set of verbs. Likewise, telicity should characterize the achievement class of verbs which should contain the unaccusative set of verbs.

The results do point up a decided correlation between unaccusativity and telicity, as predicted. The only weak point appears to be in the results for pseudo-transitives: 94% are atelic, yet half of these same also test telic. Thus the telicity tests are not exclusive, in the same way auxiliary selection is. These tests were difficult to administer to the consultant, as the range of time frames, goals, and endpoints in Basque is different than that of English, so to 'run' was possible in an hour as well as for an hour, for example. However, the overlap of telicity and unaccusativity cannot be ignored, although the total aspectual package devised by Van Valin is much less successful in its predictions.

3.23. ANIMACY. In testing for animacy, three categories fell out: +animate, -animate, and +/-animate. (See Table 8.) To receive a +animate rating, a verb could only have an animate subject. In a perfect split intransitive system, activity verbs are +animate and achievement verbs are -animate. Therefore, we would hope to find most pseudo-transitives to be +animate, and we do. On the other hand, for unaccusatives there are twice as many exclusively animate subjects than inanimate, and an almost equal number of unaccusatives that can be both. Here we find a reverse of the telicity test outcome above, where the pseudo-transitives gave confusing results: animacy is tied to transitivity, to an agentive subject. But we must not forget the total of 12 pseudo-transitives that tested inanimate (and yet transitive): weather verbs, involuntary emission of stimuli, 'to boil'—verbs semantically classified as unaccusative by Perlmutter 1978.

3.24. VOLITIONALITY. It has already been described how many unaccusative verbs can still take a purposive reading, and this does not affect a change in auxiliary from *izan* to *ukan* (see Table 9). Also, in a parallel examination, 33 of the 81 unaccusatives were able to be modified by an adverb of manner (carefully, studiously etc.) Results can be seen in column 2 of the tables within the set of aspectual tests. This +/-volitionality will be put in Table 9, to confirm that the semantic property of volitionality is not a motivating factor in separating unaccusatives from pseudo-transitives. Indeed, unaccusatives show a higher percentage of +volitional subjects than do the pseudo-transitives.

3.25. PUNCTUALITY. A last semantic distinction tested for was punctuality, or *bat batean* 'all of a sudden' in Basque. This was a precaution taken to distinguish two types of achievement verbs, if a clear achievement classemerged. However, only 57% of unaccusatives were identified as belonging to the achievement (H) class, not a

| Class | No. of verbs | % of total |
|---------------------|--------------|------------|
| States (S) | 0 | 0% |
| Accomplishments (C) | 12 | 10% |
| Activity (A) | 12 | 10% |
| Achievements (H) | 47 | 40% |
| Total | 71 | 62% |
| Unidentified | 44 | 38% |

TABLE 5. Aspectual classes of Basque intransitive verbs: Four criteria; 115 verbs.

| Class | pseudo-trn 34 | % of its total | unaccusatives 81 | % of its total |
|-----------------|------------------|----------------|---------------------|----------------|
| States | 0 | 0% | 0 | 0% |
| Accomplishments | 11 | 32% | 1 | 1.2% |
| Activity | 11 | 32% | 1 | 1.2% |
| Achievements | 1 | 2% | 46 | 57% |
| Total | 23 | 64% | 48 | 59% |
| Unidentified | 11 | 32% | 33 | 41% |

TABLE 6. Aspectual identification vs. auxiliary selection.

| | total | + [telic] | %total | - [telic] | %total |
|--------------------|-------|-----------|--------|-----------|--------|
| Pseudo-transitives | 34 | 18 | 33% | 32 | 94% |
| Unaccusatives | 81 | 80 | 99% | 2 | 2% |

TABLE 7. Telicity vs. auxiliary selection.

| | total | + [anim] | %total | - [anim] | %total | +/- [anim] | %total |
|--------------------|-------|----------|--------|----------|--------|------------|--------|
| Pseudo-transitives | 34 | 20 | 59% | 7 | 21% | 5 | 15% |
| Unaccusatives | 81 | 34 | 42% | 17 | 21% | 30 | 37% |

TABLE 8. Animacy vs. auxiliary selection.

| | total | + [vol] | %total | - [vol] | %total | ? | %total |
|--------------------|-------|---------|--------|---------|--------|----|--------|
| Pseudo-transitives | 34 | 12 | 35% | 13 | 38% | 9 | 26% |
| Unaccusatives | 81 | 31 | 38% | 39 | 48% | 11 | 14% |

TABLE 9. Volitionality vs. auxiliary selection.

large enough number to apply further semantic divisions to. As a matter of interest, the consultant Etxarri rated 37 unaccusative verbs punctual, 44 durative, 14 undecided.

3.26. PARTICIPIAL ADJECTIVES AND ANTI-CAUSATIVES. The last two syntactic tests strictly excluded pseudo-transitive verbs, while also failing certain verbs of the unaccusative set. As a last look at semantic vs. syntactic characterizations, we will compare the results of the failed and passed members of the syntactic unaccusatives, to see if there is any parallel with the failure or success of aspectual tests to identify unaccusatives. In Table 10, results are as follows: 65% of verbs passing the participial test were also identified aspectually as achievements, a correspondence predictable from the general results of Table 6. What is interesting is the correspondence of failed anti-causatives and their classification as achievement verbs, which seems to signify that even if an unaccusative has no causative counterpart, it still may have aspectual properties that help classify it as intransitive.

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| | no ID | ID | | A | H | C | S |
|------------------|-------|----|---|---|----|---|---|
| Failed (18) | 14 | 4 | > | 0 | 4 | 0 | 0 |
| Passed (63) | 21 | 42 | > | 1 | 41 | 0 | 0 |
| Anti-causatives: | | | | | | | |
| Failed (28) | 16 | 12 | > | 1 | 11 | 0 | 0 |
| Passed (53) | 19 | 34 | > | 0 | 34 | 0 | 0 |

TABLE 10. Participial adjectives.

4. CONCLUSION. At first look, it appeared there was a clear case for split intransitivity in Basque, due to the ergative vs. absolutive marking on intransitive verbs. But hopefully it has been shown that there is no split, because the so-called unergatives are in fact pseudo-transitives. The remaining problem with calling Basque simply ergative-absolutive is that the traditional view of this system is that S is simply intransitive, without taking into account that structurally speaking, the single argument of an intransitive might be either a deep subject or a deep object. But if we accept the evidence that the ergative-absolutive relation goes beyond the surface morphology into the syntax of Basque, we can see how representative 'ergative-absolutive' is, as an overall classification of the Basque language.

In addition, the analyses of both syntactic and semantic tests have hopefully demonstrated the necessity of syntactic characterization of the language. It has been shown that semantic approaches alone cannot provide convincing motivation for the co-existence of transitives, pseudo-transitives, and unaccusatives operating together within a strongly ergative system.

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