

## **On (some of) the Uses of a Syntactic Atlas**

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### **Introduction**

This paper is a modest attempt to describe some of the uses a syntactic atlas can be put to. The context of this attempt is a research project, recently funded by the French national research foundation, which has as its aim to produce a syntactic atlas of the Basque language on the French side of the Basque Country.<sup>1</sup>

The project has as its aim to launch a systematic study of dialectal and sociolinguistic variation at the syntactic and morphosyntactic levels in the Basque speaking area, by focusing in its north-eastern varieties. Its outcome will result in a basic syntactic atlas, which will make available to the scientific community an array of central morphosyntactic structures with their geographic distribution. The main objective of the project is not however the creation of the atlas per se, but to address for the first time in Basque linguistic studies the scope and the nature of syntactic variation in the Basque area, as well as the issues and the specific problems that raise gathering, analyzing and classifying morphosyntactic data. In this paper, I will be mainly concerned with the scientific use one can make of the data presented in a syntactic atlas. For that, I will select one of the morphosyntactic variables under study: dative agreement in ditransitive clauses (Etxepare and Oyharçabal, in progress).

### **1. Research on Basque linguistic variation**

#### **1.1. Background**

The Basque linguistic area constitutes today a privileged area for the study of linguistic variation: on the one hand, it still possesses a very rich array of local and regional varieties, virtually unexplored in many aspects of grammar; on the other, it has seen the development of a standard language in the educational system, the mass-media and the higher cultural production. This, together with the incorporation, by means of the educational system, of a considerable amount of bilingual speakers for whom the Basque language is not their native or home language, has produced a particularly rich linguistic landscape, where the coexistence and competition of forms constitutes a prominent phenomenon (see Haddican, 2005). One would tend to think therefore that linguistic research in those areas constitutes a strong point in Basque linguistics. It is unfortunately not the case, and less so in the area of syntactic research.

Basque dialectology has a long history.<sup>2</sup> The dialectology of the Basque language was, at least during a short period of time (1860-1880) one of the most advanced in Europe. It is in the mid XIXth century that the first important

geolinguistic work was carried out in the Basque Country, at a time when in many surrounding languages rigorous and methodical research was inexistent. This somewhat advanced beginning is due to Prince Louis Lucien Bonaparte's impulse. He was the person who first set the basis of geolinguistic work in the Basque Country, as well as in other European countries such as Italy, Albania and especially, Great Britain. In five field trips (1856-1867), Bonaparte ran all the Basque Country, to gather in situ the most salient features of the local varieties of Basque. The result of this systematic search is the well known map of the varieties of Basque (Stanford, 1863), a seminal document in Basque dialectology. Despite his efforts at classifying data, and the importance of his results in many aspects, Prince Bonaparte's work did not produce a linguistic atlas. His aim was classifying the varieties of Basque. In order to delimit the dialects, subdialects and further varieties, he selected markers that could perform this task in an unambiguous way. For that, he concentrated mainly on some aspects of the verbal morphology. Bonaparte did not assimilate the new linguistic thinking of his time, and he limited his effort to classification, without establishing any direct link between dialectology and historical linguistics, as was soon to be done.

After the 1870 war in France, Prince Bonaparte's work was interrupted, and no one seemed to take up the task of producing an atlas, despite repeated pronouncements in that regard by Julio de Urquijo in the International Basque Congress in 1918 and other important bascologists. The first president of the Basque Royal Academy, Resurrecion Maria de Azkue launched the first systematic inquiry in the first quarter of the XXth century. However, once more, the aim of this project was not creating an atlas. His Triple Questionnaire (such is the name of the inquiry) was to yield the linguistic information on which to base the creation of a standard language. Nevertheless, the data gathered by Azkue constitute an important picture of the language as it was spoken in the years 1922-1925, and they are available in Etxaide's edition of the documents (1984). Despite related attempts such as the Ethnolinguistic Atlas of the Basque Country realized by the Aranzadi society in the 70s, the realization of the atlas was still a delayed project in the last quarter of the XXth century. Finally, in 1983, the Basque Royal Academy decided to undertake the creation of a true linguistic atlas. In 1986, the team of fieldworkers was established and the first inquiries were done. In 1992, the data-gathering was over, and the digitalization of the data started. The Atlas of the Basque Language is available to all researchers in the Basque Country and abroad. The database can be consulted in two ways: as audio material and as transcribed material. All the inquiries have been recorded in magnetic tapes (4000 hours) and then digitalized in CD-ROM. The CD-ROMs contain the list of answers village by village and a cartographic interpretation of those responses. The atlas is today an obligatory reference for any dialectological inquiry. Among the important dialectological work entertained in the last quarter of the century,

we must also mention Yrizar's monumental work on the variation of the inflected verb across the whole dialectal spectrum (1981-2002). Automatic search is also possible in the corpus of the Basque General Dictionary (Bilbao: Euskaltzaindia, 1987-2005). This corpus includes authoritative texts from almost all classic literature as well as a large selection of XXth century writers, from all dialects. Many dialectal phenomena find their place in the corpora used by the dictionary. The lexical entries include historical and geographical information.

### 1.2. Issues

For the purposes of the syntactic atlas project, the data gathered in the Royal Academy atlas are at the same time very important and clearly insufficient. On the one hand, they are prone to the same kind of criticism that traditional dialectological work is subject to: the syntactic material, compared to the wealth of lexical and morphological data, is quite limited. Compared to a total of 472 questions related to morphology and lexicon, only 62 are devoted to syntactic or morphosyntactic matters. On the other hand, the treatment of syntactic variables in traditional dialectal work, of which the recent atlas is a reflection, faces problems other than the sheer quantity of the inquired syntactic variables. The basic problem from a syntactic point of view is that it offers very little information concerning the interaction of the selected variables with other structural aspects of the language, in the sense that this is understood in current syntactic theory. In order to delimit a given phenomenon, say the optionality of dative agreement in some varieties of Basque, we need to know whether this phenomenon correlates with structural aspects of the indirect object, such as its animacy or referential status. Each of those structural aspects can then be subject to dialectal variation (or not), and the way those structural properties combine tells us something about its range and the way it correlates with other aspects of grammar. Traditional dialectal work is rarely concerned with those matters. This is the case in the Basque atlas too. The atlas points out that the phenomenon exists at a given point, and this is very important, because it tells us where we can look for it. But at the same time, it says very little about its grammatical distribution and the variation this distribution is subject to. The present project is precisely interested in that which the atlas and traditional dialectal research do not provide: the range of variation and its structural realization.

### 1.3. Goals

The study of dialectal variation across dialects can have various goals. The goal of traditional dialect syntax is to explore the geographic distribution of syntactic variables. This geographically determined syntactic variation can then be used for other research, such as the investigation of language change and external language history. More recently, the scope of syntactic micro-variation

research has been extended with a view to studying the universal properties of human language, since it contributes to the understanding of the range, the patterns and the loci of syntactic variation in the linguistic system. This recent development is a consequence of the concern of the typological and generative approaches with this type of questions.

The last 20 years in the area of generative grammar have seen a growing concern with progressively more inclusive comparative studies on the one hand, and on the other, with an increasing focus in language internal variation. Both approaches directly stem from the principles and parameters model of the early eighties and the notion of parameter that ensued: in this approach, Universal Grammar is an invariant system of abstract principles that constitute the species-specific language endowment. This system allows a limited degree of variation in the form of parameters, unspecified options associated to a restricted set of grammatical loci to be set by the linguistic input in which the child's language develops. Early work in this model resulted in the formulation of large-scale parameters, such as the pro-drop parameter, which involved a large number of languages and sweeping generalizations. The limited success of these long-range formulations (see Croft, 2003:80-86, for an evaluation) caused many linguists to turn their attention to more limited areas of variation, most notably, language internal variation. Important research has been carried out since in Italian (Beninca, 1989; Poletto, 2000; Munaro, 2001 among many others), Dutch and Flemish dialects (see Barbiere et alia, 2005 and references therein) and less extensively, in German (particularly in Bavarian and Swiss German dialects, Abraham, 1993; Penner, 1995) and in English (Henry, 1995; Herman, Pietsch and Wagner, 2004). In Basque, the comparative analysis of dialectal syntactic variation is a nascent branch, starting to uncover unsuspected patterns of variation. Relevant recent works include Albizu (2000, 2001), Artiagoitia (2004), Etxepare (2003, 2006), Fernandez (2001, 2004), Haddican (2005), Oyharçabal (2005) and Rezac (2003, 2007).

As pointed out by Kayne (2005:8), the special status of microcomparative syntax resides in the fact that it is the closest we can come, at the present time, to a controlled experiment in comparative syntax. According to Beninca (1989:3), the more the dialects involved in the comparison are similar to each other, the more possible it becomes to find, for a specific grammatical locus, the ideal case of some dialects differing only in respect to phenomena that can be traced back unambiguously to a single parameter. Comparative work on the syntax of a large number of closely related varieties can be thought of as a new research tool, one that is capable of providing results of an unusually fine-grained and particularly solid character. If it were possible to experiment in languages, a syntactician would construct an experiment of the following type: take a language, alter a single one of its observable syntactic properties, and examine the result to see

what, if any, other property has changed as a consequence. If some property has changed, conclude that it and the property that was altered are linked to one another by some abstract parameter (Kayne, 1999:5). Repeated application of such experiments would provide us with a substantial body of evidence concerning what syntactic properties go together, and a way to identify the basic parameters of the syntactic component of language theory.

Like the generative approach, functional typology pursues the aims of identifying language universals and determining the patterns and limits of cross-linguistic variation. From this perspective, we can ask how much of the range of variation encountered in typological studies is found in a single language. This means that the cross-dialectal variation that can be observed in given domains of grammar (negation, relative clauses, pronominal systems) “is judged against the cross-linguistic variation described in typological studies” (Kortmann, 2001). Conversely, the dialectologist can draw upon a large body of typological insights and hypotheses on language variation, which helps in determining the kind of syntactic variable to look for, and the set of associated structural properties with which the given phenomenon interacts. Dialectal variation can also be considered a crucial corrective for typological research, in the sense that the latter is typically bound to the written standard varieties of languages. Standard varieties however, are suspect for not being faithful to the typical arrays of variation encountered in spoken language. Standard English, for instance, is not representative of the vast majority of English dialects, in lacking morphosyntactic phenomena such as multiple negation, or in the strict division of labour between the Present and the Simple Past (Kortmann, 2003). Spoken varieties perhaps abide by what Chambers (2004) has called Vernacular Universals, features that are common to spoken vernaculars generally (such as doubling constructions, regularization of morphosyntactic paradigms, or the creation of analytic constructions where the standard has synthetic forms).

## **2. The Range of Syntactic Variation**

### **2.1. What the Royal Academy Atlas tells us**

Determining the range of variation of a syntactic variable requires exploring its interaction with properties of its structural environment. The point will be more easily understood by reference to an illustrative example. In Standard Basque, as well as in its western and central varieties, the auxiliary agrees in person and number with three arguments: the subject, marked ergative, the indirect object, marked dative, and the direct object, unmarked for morphological case. In north-eastern varieties of Basque, agreement in the auxiliary for the dative indirect object happens to be optional. This is a feature noted in the recent atlas and which can be seen to delimit an isogloss roughly

distinguishing north-eastern varieties from the rest. In those varieties, both (1a) and (1b) are possible (examples from Etcheberry, 1981):

- (1) a. Jaun horrek izkribatzen **zuen** egun batez...Lourdeko aphezpikuari  
 sir that-erg write-prog aux[3sA-3sE] one day Lourdes-gen bishop-dat  
 "That sir was writing one day to the bishop of Lourdes..."  
 b. Izkribatzen **dio** Bichintchok letra bat  
 write-prog aux[3sA-3sD-3sE] St. Vincent-erg letter one-abs  
 Lourdeko aphezpikuari  
 Lourdes-gen bishop-dat  
 "St. Vincent writes a letter to the bishop of Lourdes"

The atlas tells us how the grammatical feature of agreement optionality is distributed across the Basque area: the north-eastern varieties are in contrast to central and western dialects, where dative agreement is obligatory.

## 2.2. Predicate and argument sensitivity

From a typological or comparative point of view, we are interested not only in the fact that such phenomenon is possible in certain subareas of the Basque speaking area, but also what are the limits of such alternation, how it interacts with other aspects of grammar, and how variation is distributed when a wider range of syntactic structures are taken into account. Oyharçabal (1992) and Ortiz de Urbina (1995) have noted that the alternation is subject to some conditions. First, it is heavily restricted depending on the nature of the predicate. Then, it is also sensitive to the referential status of the dative argument.

Consider for instance the fact that certain predicates do not undergo the alternation. Our consultants, all of them belonging to the area where the alternation is operative, reject alternations such as (2):

- (2) a. Esneak Mireni gaindi egin dio  
 milk-erg Miren-dat boil-over do aux.ditrans.  
 "The milk boiled over on Miren"  
 b. \*Esneak Mireni gaindi egin du  
 milk-erg Miren-dat boil-over do aux.trans.  
 "The milk boiled over on Miren"

An examination of the dialectal corpus we are employing<sup>3</sup> confirms the idea that not all predicates enter the alternation. Psychological predicates, for instance, don't. There is not a single instance of predicate like *iduritu* 'to seem to' or *laket izan* 'to like' where the dative is not cross-referenced by verbal agreement. Similarly, no verb like *baliatu* 'to be profitable to', where the dative is a dative of

interest, that allows the non-agreeing option. By looking at the cases where dative agreement is obligatory, it looks as if the alternation is bound to those predicates where the dative argument is part of the event structure. Take for instance the predicate in (1): here the event schema involves a boiling over of the milk. There is no direct relation between that event and Miren, which represents a mere interested party. In fact, Miren may be completely unrelated to the event, so that someone else is handling the milk, but for some reason, the boiling over affects Miren. In that case, the verb must show dative agreement.

The nature of the dative argument itself is also relevant to the existence of an alternation. Oyharçabal (1992) notes, for the XIXth century labourdin writer Elizanburu, that the alternation is bound to third person dative arguments. 1<sup>st</sup> and 2<sup>nd</sup> person datives seem to enforce agreement. This is not the case in the whole north-eastern area, at least in the present days: in our corpus, the alternation extends to first and second person pronoun datives. Camino (1997) also mentions that in Aescoan, a far eastern variety now in the fringe of extinction, agreement with first and second person pronouns is optional. There seems to be a dialectal divide here, which goes from the most eastern regions, where agreement is optional with all persons, to the westernmost areas, where optionality is limited to third person. Other aspects having to do with the referential status of the dative argument are also important: in our corpus, dative agreement is absent with reciprocal datives, and it is very rare with reflexive pronouns and n-words. In other words, it is either impossible or exceedingly rare to find cases unlike those in (3), with no agreement in the verb (from Larzabal's works):

- (3) a. Berak ez du nehoi kalterik eginen (Lz. I:186)  
 (s)he-erg neg aux.trans. anyone.dat arm.part. do.fut  
 "He will not do arm to anyone"  
 b. Hainbertzetan juramentu egin dugu elgarri (Lz.I:238)  
 so many times swear do aux.trans each other.dat  
 "We have sworn to each other so many times"  
 c. Beha bazinezate zuen buruari (Lz.I:346)  
 look cond.aux.trans your head.dat  
 "If you looked at yourselves"

The atlas, as it stands, does not give us even a partial picture of the kind of structural and semantic restrictions that the alternation phenomenon obeys. In turn, each of those conditioning factors is susceptible of being geographically distributed. The clustering of those conditioning factors, in turn, raises important grammatical questions. I will consider some of them in what follows.

### 3. The ambiguous status of dative constructions

### 3.1. Conceptual structures associated to the alternation

If we look, in the corpus, at what verbs allow the agreement alternation, we see that they are very similar to those presenting dative shift in English. All the verbs consigned by Gropen et al. (1989) as entering into a Double Object Construction/Prepositional Phrase Construction alternation in English show the agreement optionality above. Dative shift in English can be illustrated by the example below:

- (4) a. I sent John a letter                      b. I sent a letter to John

The list in the Basque corpus covers verbs of giving, such as *eman* "give", *helarazi* "make-have" (cf. French *parvenir*), *eskeini* "offer", *agindu* "promise", verbs of sending/receiving, such as *eraman* "carry", *ekarri* "bring", *igorri* "send", *hedatu/zabaldtu* "extend", *erosi* "buy" and *saldu* "sell", *barreatu* "spread/scatter", verbs of throwing, such as *bota* "throw"; verbs of fulfilling such as *arthamendatu* "entrust", verbs of communicated message, such as *erran* "say", *galdegin* "ask", *izkribatu* "write", *aipatu* "mention", *kondatu* "tell".<sup>4</sup>

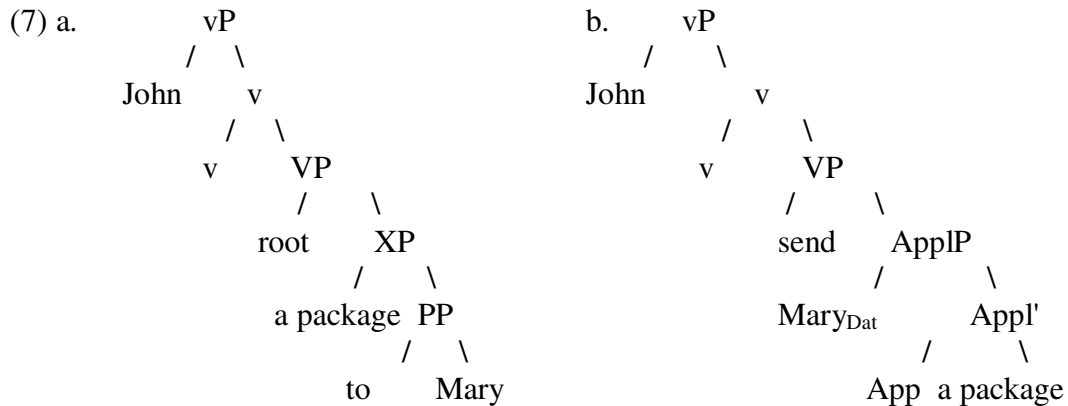
The set of predicates that allow the agreement alternation are thus the ones which give rise to the Double Object Construction/Prepositional Phrase Construction alternation in languages like English. The latter cases revolve around two basic event schemas (Levin, 2006):

- (5) a. Caused Possession: x cause y to have z (y recipient)  
b. Caused Motion: x cause z to be at y (y a spatial goal)

Although the two motion schemas are very similar, the caused possession schema needs an animate recipient. This accounts for the restriction in (6b), if the double object construction represents the caused possession schema in (5a):

- (6) a. John sent a letter to Bilbao  
b. \*John sent Bilbao a letter

Many approaches (Hale & Keyser, 2002; Harley, 2003; Krifka, 1999, 2001; Oehrle, 1976, Pinker, 1989; Marantz, 1993; Pesetsky, 1995; Pytkannen, 2002; Cuervo, 2007 a.o, but see Levin, 2008) assume that the PPC and the DOC have each a distinct syntactic source, and those sources correspond to the event schemas (7a) and (7b) (following Cuervo, 2007)



Under this view, the dative DP in the caused possession event schema is introduced by an independent applicative head that takes the object as a complement (7b). The applicative head imposes certain semantic constraints in the interpretation of that argument: it must be animate, and must be interpreted as being a potential possessor of the package. From a syntactic point of view, the dative is a DP, Case-marked by the applicative head, and not a PP, and that is why it shows up without an overt preposition in English.

Since the predicates that allow the agreement alternation in Basque are the same that allow the double object construction in English, it is fair to ask whether the Basque alternation can be understood in the same terms. One *prima facie* evidence in favour of this idea is the fact that all those cases where the dative cannot be interpreted as the end location of a transfer process do not present any alternation. In those cases (subjects of psychological predicates, datives of interest, ethical datives) dative agreement is enforced. Those would be cases where the applicative head is attached not below the root, as in (7b), but above the small *v* (the entire verbal predicate). In other words, those would be High Applicatives, in the sense of Pylkkanen (2002). But there is no possible source of ambiguity in the case of a High Applicative: ambiguity between the caused possession event schema and the caused motion event schema can only occur at a syntactic domain where both constructions are possible, and this only happens below the verbal root. Since no ambiguity is possible in the case of a High Applicative, and the dative argument of an applicative head is a DP, it follows that the inflected verb must necessarily agree with it. Hence no alternation in those cases.

One obvious objection to such an analysis has to do with the status of the dative Case marker. The presence of an overt Case-marker, a hallmark of nominal phrases, befits well the applicative structure. It is not clear however why it should come up when the dative behaves as a Postpositional Phrase. In this, comparison with other languages can also be helpful: the dative marker is in many languages

ambiguous between a Case marker and an adposition. This is the case for instance in Japanese (see a.o. Miyagawa, 1997 and Miyagawa and Tsujioka), in Greek (Anagnostopoulou, 2003) and in several romance languages (see, e.g. Jaeggli, 1982 for Spanish and Kayne, 1975 for French).

### 3.2. The predative affix as an applicative morpheme

Finite sentences containing a dative argument require a particular affix (*-i/-ki-* see Trask, 1995) in the inflected auxiliary, that has been variously called dative-flag (Rezac, 2006) or pre-dative affix (Hualde, 2003). In other words, the dative is linked to an extra affix in the auxiliary, which precedes the agreement affix cross-referencing the dative argument. Take an unaccusative synthetic verb like *nator* "I come":

- (8) N-ator  
1sA-root  
"I come"

The form in (8) can be extended to include reference to a dative argument, the end-point or recipient of the coming event. In that case, the agreement affix corresponding to the dative argument is preceded by the pre-dative affix *-ki/-i* (see Rebuschi, 1983; Hualde, 2003:207):

- (9) N-ator-**ki**-zu  
1sA-root-predat-2sD  
"I come to you"

In ditransitive sentences, the pre-dative may replace the root in some dialects:

- (10) Eman d-**i**-o-t  
given PresT-predat-3sD-1sE  
"I gave it to him"

Basque ditransitive structures have been analyzed in recent years as applicative constructions

(Elordieta, 2001; Arregi, 2001; Ormazabal and Arregi, 2003; Oyharçabal, 2007; Rezac, 2006).

The predative affix can be considered an incorporated applicative head. I note in this regard that in western and central varieties, dative Case marked arguments in ditransitive constructions must be animate when the construction has a directional meaning:

- (11) Jonek Mireni/\*Bilbori eskutitz bat bidali dio

Jon-erg Miren-dat/Bilbao-dat letter one sent aux.ditrans  
 "Jon sent Mary/\*Bilbao a letter"

Non-agreeing ditransitive constructions in eastern dialects do not show such a requirement (see section 4.4).

The alternation as seen in the eastern varieties is therefore an alternation involving both agreement and the predative affix. Superficially at least, it is straightforwardly described in terms of two different source structures: an applicative one showing the predative affix, and a postpositional one.

#### 4. The north-eastern system. Other clustering properties

In the context of a theoretical research, but particularly in the context of a syntactic atlas, we must ask what other syntactic properties the relevant varieties show that can be related to the alternation as described above. A prominent one has to do with the distributional equivalence of the dative affix and postpositional affixes in those varieties.

##### 4.1. So-called "postpositions" in Basque.

The domain of spatial relations in Basque is expressed by means of three sets of grammatical formatives: (i) suffixes; (ii) locational nouns; and (iii) free invariant spatial expressions (De Rijk, 1990; Eguzkitza, 1997; Hualde, 2002).

Suffixes are represented in (9):

- (9) a. Etxea-**n** "In the house" b. Etxe-**ra** "To the house"  
       house-D-loc house-all  
       c. Etxe-**tik** "From the house"  
       house-from

Locational nouns are exemplified in (10):

- (10) a. Etxe-a-ren **aurre**-a-n b. Zuhaitz-en **arte**-tik  
       House-D-gen front-D-loc trees-gen among-from  
       "In front of the house" "From among the trees"  
       c. Ohe-a-ren **azpi**-ra d. Erreka-a-ren **ondo**-tik  
       bed-D-gen under-all erreka-D-gen next-through  
       "(to) under the bed" "Through the space next to the river"

Locational nouns behave as regular nouns with a specialized function: they require a complement with genitive suffix, and bear suffixes which usually attach to nouns denoting spatial entities. All those locational nouns participate in noun compounding (see De Rijk, 1990), and some of them may have referential meanings and be accompanied by a determiner:

- (11) a. Etxearen aurea konpondu beharra dago  
 House-gen front fix-partc need is  
 "We must fix the front of the house"  
 b. Behiak azpia bustia du  
 cow-erg under wet has  
 "The cow's bed is wet"  
 c. Etxearen albo bat gorritz margotua zen  
 house-gen side a red-instr painted was  
 "A side of the house was painted red"

This referential use of the locational nouns gives rise to subtle differences in meaning: It is clear that *aurre* "front" does not identify the same space in (27a,b):

- (12) a. Etxearen aurre-a  
 House-gen front-D  
 "The front/façade of the house"  
 b. Etxearen aurre-a-n  
 house front-D-loc  
 "In front of the house"

The structure of the forms in (13) is uniform in the whole Basque area:

- (13) a. [POSTPOSITIONALP [NOUNP [DETP-gen ] N ]-Post<sub>Suffix</sub> ]  
 b. Etxearen aurre-a-n  
 house-gen front-D-Loc  
 "In front of the house"

Locational expressions can also occur in an invariant form: By this I mean cases where the spatial expression is bare, and does not bear any further suffix. In standard Basque they are preceded by either a genitive or a central postposition (in the sense of Talmy, 1983; Hale, 1984).

- (14) a. Etxearen **kontra**  
 House-D-gen against  
 "Against the house"  
 b. Aldapan **gora**  
 Slope-D-in up  
 "Up the slope"  
 c. Aldapan **behera**  
 Slope-D-in down  
 "Down the slope"  
 d. Basoan **barna**  
 Wood-D-in into  
 "Into the woods"  
 e. Basoan **zehar**  
 wood-D-in across  
 "Across the woods"  
 f. Basoaz/tik **kanpo**  
 Wood-D-instr/abl out  
 "Out of the woods"
- (15) a. [XP [POSTPP DP-post<sub>suffix</sub>] X(P)]<sup>5</sup>  
 b. Basoan zehar  
 wood-D-in across  
 "Across the woods"

Interestingly, and unlike with locational nouns, the form of these cases is not uniformly realized in the Basque area: north-eastern dialects have a dative suffix where the central and western dialects have either genitives or locatives. Compare (14) to (15):

- |      |                    |         |                             |        |
|------|--------------------|---------|-----------------------------|--------|
| (16) | a. Paretari        | kontra  | b. Patarrari                | behera |
|      | Wall-D-dat         | against | slope-D-dat                 | down   |
|      | "Against the wall" |         | "Down the slope"            |        |
|      | c. Patarrari       | gora    | d. Bata besteari            | aitzin |
|      | slope-D-dat        | up      | each other-D-dat            | front  |
|      | "Up the slope"     |         | "In front of each other"    |        |
|      | e. Kanale bati     | barna   | f. Bi arte horier           | kanpo  |
|      | channel one-Dat    | into    | two period those-dat        | out    |
|      | "Into a channel"   |         | "Outside those two periods" |        |

Some locational constructions alternate between a postpositional and a dative-marked complement:

- |      |                     |                     |            |            |
|------|---------------------|---------------------|------------|------------|
| (17) | a. Etxeari          | buruz               | b. Etxerat | buruz      |
|      | house-D-dat         | head-instr          | house-all  | head-instr |
|      | "Towards the house" | "Towards the house" |            |            |

The general format of those constructions can be represented as in (18):

- (18) [XP<sub>[DATP DP-dat]</sub> X(P)]

(19) gives some cases extracted from our corpus:<sup>6</sup>

- |      |   |                                     |                         |              |                             |               |             |
|------|---|-------------------------------------|-------------------------|--------------|-----------------------------|---------------|-------------|
| (19) | a. Herrirat   | heltzeko                            | <b>oihan beltz bati</b> | <b>barna</b> | joan                        | behar         | zen         |
|      | Village   | get-Nom                             | wood dark one-Dat       | inside       | go                          | need          | was         |
|      | "In order to get to the village, one had to cross a dark wood"                          |                                     |                         |              |                             |               |             |
|      | (JEtchep. 15)   |                                     |                         |              |                             |               |             |
|      | b. Biriaturko   | <b>mendieri</b>                     | <b>behera</b>           | lasterka     | heldu                       | da            |             |
|      | Biriaturko  | gen                                 | mountains-dat           | down         | running                     | come          | is          |
|      | "He came running down the mountains of Biriatur"  |                                     |                         |              |                             |               |             |
|      | (J.B.Etcheb.H-H. 135)   |                                     |                         |              |                             |               |             |
|      | c. Sekulako   | igan-aldia                          | egin                    | dugu,        | ... <b>Ihartze mendiari</b> | <b>gora</b>   |             |
|      | great   | ascent                              | done                    | have         | Ihartze                     | mountain-dat  | up          |
|      | "We made a great ascent up the Ihartze mountain"(J.B.Etcheb.H-H. 119)                   |                                     |                         |              |                             |               |             |
|      | d. Bainan   | <b>bi arte labur horier kanpo</b> , | itzala                  | bezain       | iheskor                     | da            | jinko-oiloa |
|      | but   | two period                          | short                   | them-dat     | out,                        | shadow        | as elusive  |
|      | "But outside those two short periods, the butterfly is as elusive as a shadow" (Ab, L.) |                                     |                         |              |                             |               |             |
|      | d. ...eta   | odol-hustua,                        | hantxet                 | zagon        | <b>pezoinari</b>            | <b>kontra</b> |             |

and bloodless there he-was trench-dat against

"And there he lay, bloodless, against the trench" (Lafitte, Piarres. MetB)

A comparison between the central/western forms and the north-eastern ones gives us the following (partial) equivalence in the constructions discussed:

(20) Suffixal locational postpositions in central and western Basque correspond to dative in north-eastern varieties.

b. POSTPOSITION=DATIVE

But this is what we expect for a variety where the dative behaves as a postposition in other constructions.

#### 4.2. Aspectual roles of the dative.

In north-eastern varieties, the dative is selected by aspectual verbs of the progressive or inchoative type (examples from Lartzabal's work):

- (21) a. Bere lanari ari da  
His work-dat prog is  
"He is doing his work"  
b. Eta horren ahultzeari ari zirezte  
and that-gen weaken-Nom-D-dat prog are  
"And you are weakening that"
- (22) a. Josturari lotu da  
sewing-dat tied is  
"He started sewing"  
b. Horren hedatzeari bermatu zen  
that-gen spread-Nom-D-dat engaged is  
"He engaged into spreading it [the good news]"  
c. Uzten haut hire lanari  
Leave aux your work-dat  
"I leave you working"
- (23) a. Doatzila pala eta pikotzari  
Go-imp shovel and pick-dat  
"Let them go to shovel and pick"  
b. To Ferrando, jozak lanari!  
You Ferrando, hit-imp work-dat  
"Hey Ferrando: start working"

The aspectual verbs that select dative in (23) would select a locative suffix for their complements in central and western varieties for (22a-c), and an allative for the cases in (23):

- (24) a. Lanean ari da                      b. Lanean uzten haut  
Work-loc prog is                      work-loc leave aux

- |      |                                |                       |
|------|--------------------------------|-----------------------|
|      | "He/she is working"            | "I leave you working" |
| (25) | a. Jo ezak lanera              |                       |
|      | Hit aux work-all               |                       |
|      | "Start working"                |                       |
|      | b. Hura hedatzera bermatu zen  |                       |
|      | that spread-all engaged was    |                       |
|      | "He engaged into spreading it" |                       |
|      | c. Doazela lanera              |                       |
|      | go-imp work-all                |                       |
|      | "Let them go to work"          |                       |

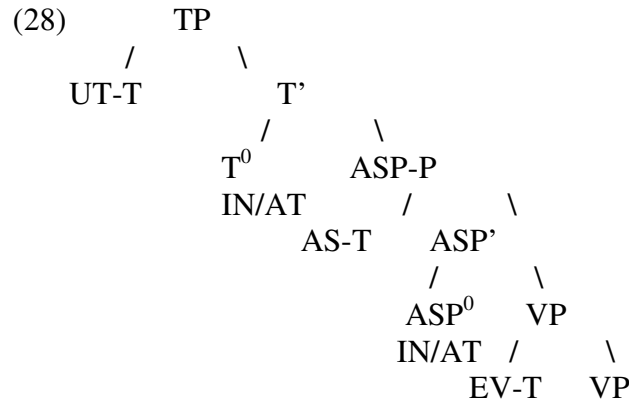
The dative suffixes in the north-eastern varieties, alternate with locatives and allatives:

- (26) Lotu zen lanera/lanean/lanari  
 Tied was work-all/work-loc/work-dat  
 "He started working"

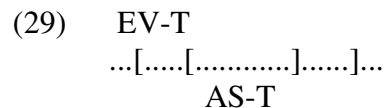
Why is this? It is a well-established idea that aspectual and also temporal notions are based on topological conceptual schemas (Bybee, 1995; Haspelmath, 2000). In Basque grammatical history, the idea goes back to Darrigol's essay in the early XIXth century (see Anderson, 1973, for a contemporary appraisal). The use of locative and allative suffixes to express aspectual relations in Basque is an illustration of the kind of data that supports this view. As a concrete instantiation, let me briefly present Demirdache and Uribe-Etxebarria's (2000, 2002a, 2002b, 2004a, 2004b) theoretical model for the analysis of aspectual and temporal notions, which synthesizes work developed in different grammatical approaches. D&U develop an analysis of aspectual and temporal relations in which tenses and aspects are spatiotemporal predicates (also Stowell 1996; Zagona 1995, 2003). Those predicates establish topological relations –of precedence, inclusion and subsequence– between two arguments that denote time intervals. The main ingredients of Demirdache and Uribe-Etxebarria's topological approach to temporal-aspectual systems are two: a set of given temporal intervals; and a set of relations between them. The temporal intervals are the Utterance Time (UT-T), the Time of the Assertion (AS-T) (Klein, 1994) and the Event Time (EV-T). Tenses and aspects order those intervals by means of a limited set of relations. Tense orders the temporal intervals denoted by the UT-T and the AS-T, whereas aspect orders the temporal intervals denoted by AS-T and EV-T. As an illustration of how their system works, take their analysis of the present progressive in English (27):

(27) Aitor is reading *Obabakoak*

The temporal syntax of the present progressive in English consists of the following predicative structure:



The progressive is a spatiotemporal predicate with a meaning similar to “in/at”. It establishes an inclusion relation between its two arguments: it orders the Assertion Time (the temporal portion of the event time which constitutes the object or assertion) inside the Event Time (the total reading time). It thus focalizes a subinterval of the Event Time, as shown in the schema below:



The progressive focalises a phase in the internal temporal structure of the eventuality. The interval so captured, does not include the borders of the eventuality (its inception and end). Finally (28) describes a present eventuality because the utterance time is *in* (not *after* or *before*) the assertion time (the time interval *about* which an assertion is made).

The intervals which are ordered by means of aspectual and temporal heads are semantically structured as the figure and the ground of the relation (Talmy 1983). The specifier of the aspectual or temporal head is mapped as the figure of the topological relation, while the complement of that head is mapped as the ground. Hale (1984) argues that the spatiotemporal relations can be uniformly defined in terms of an opposition: the coincidence between the figure and the ground is either central, or non central. A predicate which expresses central coincidence specifies that the situation, the path, the positioning of the figure (F) centrally coincides with the ground (G). A predicate of non-central coincidence specifies that the localisation, path or positioning of F does not centrally coincide with G. The later predicates divide in (at least) two different types: the [-central;

+centripete] predicates place the figure before the ground, or indicates that the path F follows goes towards G. The [-central;+centrifuge] predicates indicate that the localisation of F is after G, or that the path followed by F departs or comes from G.

Locational adpositions are the typologically privileged means to express those topological notions (see Bybee et alia, 1995; Haspelmath, 2000), so it is not surprising to find them once and again across languages in the aspectual/temporal realm. Demirdache and Uribe-Etxeberria (2000) present a handful of cases among which the Basque progressive, which includes a locative suffix to express central coincidence (p. 146):

- (30) Urko eta Oihana kanpoan jolaste-**n**            ari dira  
        Urko and Oihana outside play-Nom-Loc engaged are  
        “Urko and Oihana are engaged in playing outside/are playing outside”

It seems straightforward to extend Demirdache and Uribe-Etxeberria’s analysis to non-finite dependents: the relation between the matrix event and the dependent event is mediated by the same adpositional predicates which mediate between say, *ari* and the nominalized non-finite dependent in (30). Consider in this regard the following contrast between the locative and the allative postpositions (which arises for speakers optionally selecting one or the other under certain control predicates):

- (31) a. [PRO liburu debekatuak irakurtzen]            ausartu,  
               book forbidden-pl read-Nom-Loc dare  
               #eta gero ez zituen irakurtzen  
               and then neg aux read-Nom-Loc  
        “He dared reading forbidden books, #and then he didn’t read them”  
        b. [PRO liburu debekatuak irakurtzera]            ausartu  
               book forbidden-pl read-Nom-Loc dare  
               eta gero ez zituen irakurtzen  
               and then neg aux read-Nom-Loc  
        “He dared to read forbidden books, and then he didn’t read them”

Whereas the locative places the reading event inside the trying event in (31a), yielding the implication that the subject has engaged in reading, the allative postposition places the trying event *before* the reading event in (31b), leaving in the air whether the subject has engaged in reading or not. For this reason the *but*-clause, which makes explicit the non-realized status of the eventuality, is acceptable in (31b), but not in (31a).

Let me therefore conclude that *-n* and *-ra* lexicalize the aspectual domain, expressing central and non-central aspectual notions.

(32) [AspP [...] [Asp -n/-ra]]

The presence of the dative in those same functional slots should then be interpreted along the lines of (20), repeated here:

(20) a. Locational postpositions in central and western Basque correspond to dative in north-eastern varieties.

b. POSTPOSITION=DATIVE

#### 4.3. Binding: the reflexive possessive.

North-eastern varieties of Basque have kept the distinction between two possessive pronouns: one that we will call "reflexive", and another one that we will call "obviative". The descriptive rule for the licensing of the reflexive possessive pronoun *bere* "his/her/its" was independently discovered by Linschmann and Aresti, and it is called the Aresti-Linschmann rule. It amounts to saying that *bere* can only be licensed if the clause where it is contained also includes an ERG, DAT or ABS antecedent:

- (33) a. Pello<sub>i</sub> bere<sub>i</sub> amari txakurra erakutsi dio  
 Pello-erg his mother-dat dog-the-abs shown aux[3sA-3sD-3sE]  
 "Pello<sub>i</sub> showed the dog to his<sub>i</sub> mother"  
 b. Bere<sub>i</sub> txakurrak Pello<sub>i</sub> ausiki du  
 his dog-erg Pello bite aux[3sA-3sE]  
 "His<sub>i</sub> dog bite Pello<sub>i</sub>"  
 c. Bere<sub>i</sub> ama Pellori<sub>i</sub> mintzatu zaio  
 his mother Pello-dat talked aux[3sA-3sD]  
 "His<sub>i</sub> mother talked to Pello<sub>i</sub>"

Postpositional phrases do not license *bere*:

- (34) a. Haren/\*Bere<sub>i</sub> ama Pelloz<sub>i</sub> mintzatu da  
 His/His mother Pello-instr talked is  
 "His<sub>i</sub> mother talked about Pello<sub>i</sub>"  
 b. Pelloz<sub>i</sub> mintzatu nitzaio haren<sub>i</sub>/\*bere<sub>i</sub> anaiari  
 Pello-instr talked aux[3sA-3sD] his/his brother  
 "I talked about Pello<sub>i</sub> to his<sub>i</sub> brother"

Rebuschi (1997:226) notes the following contrast in actual north-eastern varieties:

- (35) a. Pellori<sub>i</sub> bere<sub>i</sub> dirua eman diot

- Pello-dat his money given aux[3sA-3sD-3sE]  
 "I gave his<sub>i</sub> money to Pello<sub>i</sub> "  
 b. \*Pellori bere dirua eman dut  
 Pello-dat his money given aux[3sA-3sE]  
 "I gave his<sub>i</sub> money to Pello<sub>i</sub> "

Interestingly, the reason for the ungrammaticality of (35b) cannot be just the absence of agreement: *bere* is possible with a DP antecedent in nominalized clauses, which show no agreement at all (36).

- (36) [Nik Pellori<sub>i</sub> bere<sub>i</sub> dirua ematea] bidezkoa da  
 I-erg Pello-dat his money-D-abs give-Nom-D appropriate is  
 "It is appropriate that I should give his<sub>i</sub> money to Pello<sub>i</sub> "

As Albizu (2001) notes, the contrast in (23) is straightforwardly accounted for under the hypothesis that dative phrases triggering no agreement are postpositional phrases. As such, they behave as the postpositional phrase in (22) with respect to binding.<sup>7</sup>

#### 4.4. Motion verbs

Verbs of directed motion in north-eastern varieties optionally present datives in clear locational roles and with inanimate DPs:

- (37) a. Jaun erretora badoa elizako atearen gakoari  
 Sir priest goes church door-gen lock-dat  
 "The priest goes towards the lock of the church-door" (Lz.I, 235)  
 b. Abiatzen gaituk beraz bideari  
 set-out-prog aux then way-dat  
 "We set out in our way" (Lz.V, 61)  
 c. Alemanen tankak oldartzen zirela ... Maginot harresiari  
 German-gen tanks charged aux-Comp Maginot fence-dat  
 "As the German tanks charged against the Maginot line" (Lz, VII, 53)  
 d. Nolanahika erabiltzen zuen dirua. ...bil arau haizeari

barrea

irresponsibly employed aux money get-as-soon wind-dat spread  
 "He used the money in an irresponsible way. As he got it, he spread it in the air" (Etc.OM, 103)

- e. ...utzia zuen egiazko erlisioneari itzultzea  
 galdegiterainokoan  
 left had-Comp true religion-dat come-back ask-to-extent-  
 loc

"...to the extent that he asked to come back to the true religion" (Etc. FE, 53)

f. Ate guzieri jotzen      du  
door all-dat knock-hab aux

"He knocks on all doors" (Etc.FE, 65)

The locational or directional role of the dative with inanimate DPs is what we expect from the view of the alternation expounded in section 2. In its non-agreeing configuration, the dative marker functions as a postposition.

#### 4.5. Double datives

If the agreeing and the non-agreeing dative DPs belong to two different structures, one mediated by an applicative head and the other one reflecting a postpositional construction, we expect the combination of both datives to be at least a possibility (see Miyagawa et alia, 2004, for Japanese). Our corpus provides the following (lonely) case of a double dative construction (from Lz. I, 66):

(38) Traidoreari begitarteari azkenean ohartuz...  
traitor-dat face-dat      finally    looking  
"Looking finally at the traitor into his face"

### 5. Summary and Conclusions

The varieties that present an alternation in dative agreement are also those where the dative suffix seems to be able to work as a postposition. The ambiguous nature of the dative in those varieties then invites an analysis of the alternation itself in terms akin to the PPC/DOC alternation in English, namely as involving two different source structures: one representing a caused possession event schema, where the dative is introduced in the syntactic structure by an applicative head, and one representing a caused motion event schema, where the dative has a postpositional character. This basic ambiguity of the dative suffix as a Case marker and a postposition seems to be at the heart of a set of closely related properties. It remains to be seen to which extent a systematic inquiry of the alternation in a wider geographical area and under a more complex sociolinguistic context provides further confirmation of the hypothesis. But this is precisely the aim of the atlas project.

An extensive inquiry of the geographical distribution of syntactic variables such as the one presented here should provide us with: (i) a view of the scope of syntactic variation related to a grammatical variable within the limits of a dialectal area; (ii) and crucially, a view of how the grammatical components of that variation interact with each other and with additional syntactic properties of the varieties under study. Such an inquiry should ultimately tell us something about how different grammatical properties cluster together, and what the possible limits of variation are. Although the empirical domain of the atlas is the Basque

area, at the appropriate level of abstraction, the results are directly relevant to both typological and theoretical linguistics.<sup>8</sup>

### Notes

<sup>1</sup> The project is called Towards a Syntactic Atlas of the Basque Language, and will be carried out during the years 2008-2011. It is led by the research lab IKER, in Bayonne, in collaboration with linguists and computer scientists of the University of the Basque Country. It also counts with technical and logistic assistance from the Université de Pau et des Pays de l'Adour. I would like to thank Viola Miglio for inviting me to present this work in the 1st Symposium in Basque Studies at the University of California Santa Barbara. I also thank the audience for a lively discussion of the paper.

<sup>2</sup> See the introduction to the Royal Academy Atlas of the Basque Language (in press).

<sup>3</sup> The corpus is composed by the writings of three dialectal writers of the north-eastern area of the second half of the XXth century: Etcheberry (from Garazi), Sallaberry (Heleta) and Lartzabal (Azkaine). See references.

<sup>4</sup> To those verbs, we must add verbs introducing a comparison, such as *konparatu* "to compare", *gaina hartu* "to be more than", *nausitu* "to get to dominate", and a few verbs of propositional attitude such as *pentsatu* "think", and *ohartu* "realize". The latter never show dative agreement in the auxiliary. They could be calques from French (*penser à*).

<sup>5</sup> For the purposes of the present paper I remain agnostic as to the category of the invariant spatial expression. See Eguzkitza (1997) and Hualde (2002).

<sup>6</sup> Example (19d) comes from a search in [www.amarauna.com](http://www.amarauna.com) a digital corpus of classical Basque texts.

<sup>7</sup> An important caveat to this conclusion is that non-agreeing dative phrases don't license the obviative demonstrative either, as one would expect from postpositional phrases. Compare (ia,b):

- (i) a. Mirenekin<sub>i</sub> haren<sub>i</sub> diruaz mintzatu naiz  
       Miren-with her-poss.obv money-instr spoken aux  
       "I talked with Miren about her money  
       b. \*Jonek Mireni<sub>i</sub> haren<sub>i</sub> dirua itzuli du  
       Jon-erg Miren-dat her-poss.obv money returned aux  
       "Jon gave her money back to Miren"

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