

Polysemy in Basque Locational Cases

IRAIDE IBARRETXE-ANTUÑANO

University of Zaragoza

Basque, a language spoken on both sides of the western Pyrenees, has rich lexical and grammatical resources for expressing space. It has five different locational cases and over thirty locational postpositions, mostly spatial nouns which can take any of the locational case-suffixes. The five locational cases of Basque are locative *-n*, ablative *-ti(k)*, allative *-ra(t)*, terminative allative *-raino*, and directional allative *-rantz*. Most accounts of locational cases are good sources for descriptive as well as etymological information. However, when it comes to explaining and understanding conceptualizations of space and motion in Basque, these studies do not offer any insights. They usually provide a list of different grammatical and semantic usages, but no explanation for their motivation, their internal structure and organization, or their linguistic realization. These three issues will be the main focus of this paper. Taking Cognitive Linguistics as my theoretical framework, I will argue that the different polysemous senses, spatial and non-spatial, of Basque locational cases can be understood as complex lexical networks organized around central spatial prototypical meanings. These prototypical meanings are structured by means of image schemas and their role bindings. The other senses of locational cases are motivated semantic extensions deriving from the prototypical spatial senses and linked to them by means of compositional polysemy and cognitive mechanisms such as metaphor.

1. Basque locational cases*

1.1 Morphological characteristics

Within the Basque case system, locational cases form a special group, not only because they share a common reference to space, but also because they behave morphologically differently from the other Basque cases.¹ Their main properties are the following: (i) they are of direct relevance to the distinction between animate and inanimate head nouns, (ii) they lack the article *-a* in the

definite singular form, and (iii) they have the infix *-(e)ta* in non-singular inanimate NPs.

Firstly, locational cases treat phrases headed by an animate noun differently from phrases headed by an inanimate noun. Animate head nouns as in (1) add the morph *gan*² (Western dialects) or *baita* (Eastern dialects) to the genitive (this case may be dropped in the definite singular). Inanimate head nouns as in (2), on the other hand, do not take this morph.

- | | |
|---|--|
| (1) <i>ama-ren-gan</i>
mother-GEN.SG-gan.LOC ³
'in the mother' | <i>ama-ren</i> <i>baita-n</i>
mother-GEN.SG baita-LOC |
| (2) <i>etxe-an</i>
house-LOC.SG
'in the house' | |

As is pointed out by Laka (1995: 66), it is important to bear in mind that “what counts as an animate noun in the grammar of Euskara [Basque] is not determined by modern biology.” Although in most cases biological animate entities coincide with entities treated as animate in Basque grammar, there are a few exceptions. This is the case with reciprocal *elkar*, for instance, which is always considered animate even in those cases where the noun it refers to designates an inanimate entity. Consider example (3), where *elkar* refers to *etxe hauek* ‘these houses’.

- (3) *Etxe hauek elkarrengandik hurbilegi daude.*
House these recip.GEN.gan.ABL near.too are
'These houses are too near to each other.' (Laka 1995)

It is also important to keep in mind that the locative case allows an animate head noun to occur without the morph *-gan*. In these cases, the meaning is not ‘location (in, on, at)’ but ‘among’. So, for example, *mutil-en-gan* [boy-GEN.PL-gan.LOC] would mean ‘in/on the boys’, and *mutil-eta-n* [boy-PL-LOC] would be ‘among the boys’.

A second characteristic of Basque locational cases is that the definite singular does not take the article *-a*. For instance, the word *etxe* ‘house’ in the singular ablative case would be *etxe-tik* [house-ABL] ‘from the house’.⁴ This is different for the non-locational cases, where in the same situation these would have to insert the article *-a* before the case ending. For example, the word *etxe*

‘house’ in the singular ergative case would be *etxe-a-k* [house-*a*-ERG] ‘the house’.

A final property of locational cases is the presence of the infix *-(e)ta-* in non-singular inanimate NPs, as in the indefinite locative *zein etxe-ta-n?* [which house-*ta*-LOC] ‘in/on/at which house?’ and the plural locative *etxe-eta-n* [house-*eta*-LOC] ‘in/on/at the houses’.⁵ This infix does not occur in the rest of non-locational cases in Basque. For example, the indefinite ergative would be *zein etxe-k?* [which house-ERG] ‘which house?’, and the plural ergative *etxe-ek* [house-ERG.PL] ‘the houses’.

Table 1 summarizes the morphological characteristics of Basque locational cases discussed in this section.

Table 1. Morphological characteristics of Basque locational cases⁶

Locational case	Indefinite	Singular	Plural
Locative inanimate	<i>-(e)tan</i>	<i>-n, -an, -(e)an</i>	<i>-etan</i>
Locative animate. West	<i>-(r)engan</i>	<i>-a(ren)gan</i>	<i>-engan</i>
Locative animate. East	<i>-(r)en baitan</i>	<i>-aren baitan</i>	<i>-en baitan</i>
Allative inanimate	<i>-(e)tara</i>	<i>-(e)ra</i>	<i>-etara</i>
Allative animate. West	<i>-(r)engana</i>	<i>-a(ren)gana</i>	<i>-engana</i>
Allative animate. East	<i>-(r)en baitara</i>	<i>-aren baitara</i>	<i>-en baitara</i>
Terminative allative inanimate	<i>-(e)taraino</i>	<i>-(e)raino</i>	<i>-etaraino</i>
Terminative allative animate. West	<i>-(r)enganaino</i>	<i>-a(ren)ganaino</i>	<i>-enganaino</i>
Terminative allative animate. East	<i>-(r)en baitaraino</i>	<i>-aren baitaraino</i>	<i>-en baitaraino</i>
Directional inanimate	<i>-(e)tarantz</i>	<i>-(e)rantz</i>	<i>-etarantz</i>
Directional animate. West	<i>-(r)enganantz</i>	<i>-a(ren)gantz</i>	<i>-engantz</i>
Directional animate. East	<i>-(r)en baitarantz</i>	<i>-aren baitarantz</i>	<i>-en baitarantz</i>
Ablative inanimate	<i>-(e)tatik</i>	<i>-(e)tik</i>	<i>-etatik</i>
Ablative animate. West	<i>-(r)engandik</i>	<i>-a(ren)gandik</i>	<i>-engandik</i>
Ablative animate. East	<i>-(r)en baitarik</i>	<i>-aren baitarik</i>	<i>-en baitarik</i>

1.2 Polysemy in Basque locational cases

In this section, I will briefly summarize the principal meanings of Basque locational cases, as presented in previous accounts in Basque reference grammars (see Basque grammar reference section).⁷

The *locative case* (*-n*) is one of the most productive cases in the Basque case system. Its basic meaning is ‘location’ in space (‘in’, ‘on’, ‘at’), as in *kale-eta-n* [street-PL-LOC] ‘in the streets’, *mahai-an* [table-LOC.SG] ‘on the table’, *etxe-an* [house-LOC.SG] ‘at home’. Sometimes it also expresses motion (‘into’),

as in *geltoki-an sartu* [station-LOC.SG enter] ‘to go into the station’. In the domain of time, *-n* refers not only to location in time as in *ostiral-ean* [friday-LOC.SG] ‘on Friday’, but also to a time span, as in *urtebete-an* [year-LOC.SG] ‘in a year’. It also indicates ‘x many times’ (e.g., *hiru-ta-n* [three-INDF-LOC] ‘three times’), and ‘quantity of money’ (e.g., *hiru mila pezeta-ta-n* [three thousand peseta-INDF-LOC] ‘for three thousand pesetas’). Furthermore, certain noun phrases marked by a locative can function as manner adverbials (e.g., *patxada-n* [calm-LOC.SG] ‘slowly’) and as activity adverbials (e.g., *pokerr-ean* [poker-LOC.SG] ‘playing poker’).⁸ Finally, the locative case is also used as an emphatic marker both with the partitive case (e.g., *isil-ik-an* [silence-PART-LOC.SG] ‘quietly’) and with the ablative case (e.g., *mendi-tik-an* [mountain-ABL-LOC.SG] ‘from the mountain’).

The *ablative case (-ti(k))* is usually defined as expressing the ‘source of motion’, both in the spatial and temporal domains. For example, *etxe-tik* [house-ABL.SG] means ‘from the house’, and *ostiral-etik* [friday-ABL.SG] ‘since Friday’.⁹ In specific contexts, the ablative can also convey the meaning ‘through’ as in *leiho-tik* [window-ABL.ABL] ‘through the window’. Certain noun phrases bearing the ablative case are used to express ‘manner’ (*gogo-tik* [will-ABL.SG] ‘really hard’), and ‘activity’ (*esate-tik egite-ra alde itzela dago* [saying-ABL.SG doing-ABL.SG side big-DET.ABS is] ‘there is a big difference between saying and doing’).

The *allative case (-ra(t))* expresses the ‘goal of motion’ in the domain of space, as in *etxe-ra* [house-ALL.SG] ‘to the house’. In the domain of time, the use of the allative is restricted to those expressions where both the starting point and the endpoint are mentioned.¹⁰ For instance, if we want to say ‘from Monday to Friday’, we will use the allative as in *astelehen-etik ostiral-era* [monday-ABL.SG friday-ALL.SG], but if we just want to mention the endpoint, the use of the allative is not allowed; instead, the postposition *arte* ‘between’ is used. Therefore, ‘until tomorrow’ is translated as *bihar arte*. The allative case is also used for the expression of purposes or aims (*perretxiku-ta-ra* [mushroom-INDF-ALL] ‘to pick up mushrooms’). Finally, the allative case is used in the formation of some manner adverbials; for example, *euskal era-ra* [basque way-ALL.SG] ‘in the Basque way’, *aisi-ra* [bliss-ALL.SG] ‘as you like it’, *antz-era* [similarity-ALL.SG] ‘in a similar way’.

The *goal, destinative or terminative allative (-raino)* conveys the meaning ‘up to’ in the spatial domain, as in *etxe-raino* [house-TER.SG] ‘up to the house’. It indicates a telic motion event, that is, the trajector reaches his final destination. Apart from some frozen expressions such as *oraindino* ‘until

now', *betidaino* 'forever', and *gaurdaino* 'until today', the terminative allative case is not usually applied to the temporal domain.¹¹

The *directional allative* (-*rantz*, -*runtz*, -*rontz*) indicates the notion of 'towards' in the spatial domain as in *etxe-rantz* [house-DIR.SG] 'towards home'. This locational case profiles the directionality of the motion event. The trajector moves towards a specific destination but it is not specified whether he reaches or not the place where he moves towards. It cannot be applied to the temporal domain.

1.3 *Transcending earlier semantic analyses*

As this brief summary shows, traditional grammars recognize and describe a wide variety of meanings conveyed by locational cases ranging from space and time to activity, manner, and purpose, among others. To some extent, descriptive analyses of this kind are useful if one is just interested in acquiring a basic knowledge of the functioning and use of these cases. However, they do not explain why the locational cases function the way they do. More specifically, these descriptive analyses do not succeed in accounting for a number of important issues:

- a. They fail to provide a *cognitive motivation* for the wide variety of uses locational cases may display, i.e., they do not explain why some of these locational cases convey these various meanings, and not other senses.
- b. They do not pay attention to the *internal organization of meanings* of a locational case, i.e., to the interrelations between its various meanings. In particular, they fail to address questions such as: Is there a central, prototypical meaning that the other meanings stem from? What do all the meanings conveyed by a particular case have in common?
- c. The linguistic realization of meanings, i.e. extended uses of the same case can be attributed to the semantics of the locational case or/and to the use of the locational case in a particular context (specific verb, specific landmark).

These issues are fundamental if one wants to fully understand how locational cases work. But, if they are so fundamental, why have they not been given more attention in previous accounts? A possible answer might be found in the theoretical frameworks underlying these earlier analyses and in their treatment and understanding of what case, and more specifically locational case is.

The study of case has been a research topic since Antiquity, which has given rise to a wide variety of viewpoints on its nature and classification.¹² In particular, case has been viewed (i) as a list of functions and meanings, (ii) as a system of relations, or (iii) as a largely syntactic notion.

Traditionally, cases have been described in terms of an inventory of functions and meanings. On this account, cases are classified as grammatical (syntactic) or semantic (concrete),¹³ according to whether they express a purely syntactic or a semantic relation, respectively. This type of classification gives rise to serious problems. First of all, the distinction between syntactic and semantic case itself is not sufficiently clear-cut. Some so-called syntactic cases are also used to express semantic relations or contrasts. Kopecka (2002), for example, argues that in Polish, the distinction between accusative and locative case marking with the preposition *na* 'on' used in a dynamic context corresponds to a contrast of profiling of the spatial scene based on the conceptualizer's perspective. In a sentence like *Anna puts the journal on the table*, the conceptualizer would use *na* 'on' + locative, if s/he wanted to focus on the location of the spatial scene, the final location for the journal, i.e. the table. But, on the other hand, if s/he wanted to focus on the goal of the spatial scene, that is, the fact that Anna takes the journal from somewhere else and moves it onto the table, then the conceptualizer would use *na* 'on' + accusative. In this case, it is very difficult to maintain that the accusative is a grammatical case and the locative a semantic one because both of them convey a semantic contrast.¹⁴ Another intrinsic problem of this classification is that it implies a hierarchical organization, whereby grammatical cases are considered more important than semantic ones, as is evidenced by the type of general labels attached to them. For example, Blake (2001: 33) calls the former "core cases" and the latter "peripheral cases". As the Polish example shows, this hierarchy only makes sense from a syntactic viewpoint, but once a semantic point of view is taken this hierarchy becomes vacuous.¹⁵

In the structuralist period, cases are no longer viewed as mere inventories of uses and functions. Especially Hjelmslev's (1935, 1937) and Jakobson's (1990 [1936]) writings are important in this respect. For these linguists, cases are understood as systems; each case has a single, general meaning,¹⁶ which is not self-sufficient in that it needs to be determined in opposition with the other members of the system (and thus cannot be determined in isolation). Although these authors did take into consideration the importance of the syntactic and lexical environment of a case (this could be linked to our third point about the linguistic realization of meanings above), they do not deal with the cognitive motivation for the general or particular meanings of the case.

More recent linguistic theories such as Generative Linguistics run into similar problems in their treatment of cases, when viewed from a semantic perspective. A case theory such as espoused in Chomsky's Government and Binding model, for instance, is mostly about abstract case and case-marking rules. Case, now considered an important module of the grammar, is defined as a "system for marking depending nouns for the type of relationship they bear to their heads" (Blake 2001: 47). In other words, case is studied for the possible syntactic relationships that it brings about, for the different possibilities of case assignment for the NP governed by the VP. Generative linguists, then, are more interested in what they call 'structural case'—sensitive to the structural configuration—than in 'inherent case'—sensitive to the semantic role. As a result, locational cases are out of their scope of its investigation. Possible semantic differences such as those expressed by the choice of one case instead of another—cf. the Polish accusative and locative alternation—are simply ignored.

In sum, the study of case has generally been focused on providing an inventory of their functions and meanings, on their paradigmatic relations within the system, or on their syntactic functions. Consequently, issues concerned with the semantics of cases and their cognitive motivation have been put aside. Fortunately, in recent years, these semantic-cognitive issues have been given more attention again within the framework of Cognitive Linguistics, as outlined by Langacker (1987, 1991a, 1991b). In Langacker's framework, it is assumed that much of grammar—and hence also cases—is inherently meaningful, i.e., that "grammatical structure is inherently symbolic and that all valid grammatical constructs have some kind of conceptual import" (Langacker 1991b: 282). Furthermore, under a Cognitive Grammar analysis, it is assumed that cases are polysemous (cf. Langacker 1991b: 235; Smith 1987, 2001).

In this paper, I do not aim at providing a full picture and thorough explanation of all the polysemy that exists in Basque locational cases, which would require much more space than what is allowed on this occasion. This is why I will only pick up a few relevant examples that will help to show that the different usages of locational cases are not to be understood as unstructured lists of unrelated potential meanings, but as motivated semantic networks structured around a prototypical spatial meaning.

My goal, therefore, is to offer a start with an account that transcends a simplified descriptive or syntactic analysis of case; a start that will give way to an integrated semantics-based model, where the three issues mentioned at the beginning of this section (cognitive motivation, internal organization, and

linguistic expression) act in synergy with, and not separately from, more formal aspects. In the remainder of this paper, I will account for each of these issues using tools provided by the Cognitive Linguistics framework: ‘internal organization’ will be dealt with in section 2.1, ‘cognitive motivation’ in section 2.2, and ‘linguistic expression’ in sections 2.3 and 2.4.

2. Cognitive motivation, internal organization, and linguistic expression in locational cases

2.1 Lexical networks and prototypical meanings

In the previous section, we have seen that the locative case, for example, can convey up to seven ‘different’ meanings. The problem is not, however, that this locative case has a high number of semantic usages, but whether they should be considered as really ‘different’ or rather, as interrelated in some way.

Making use of insights from Cognitive Linguistics, I would like to suggest that these meanings are not to be considered ‘different’ senses, but ‘motivated’ extensions that stem from the prototypical meaning of the locative case and that, together, form a lexical network.¹⁷ In prototype categorization theory (cf. Rosch 1973, 1977, 1978, 1983; Rosch and Mervis 1975; Mervis and Rosch 1981), a ‘prototype’ is the best, the most prominent, and the most typical member of a category. Therefore, the ‘prototypical meaning’ of the locational case can be defined as its most prominent and most typical meaning.

A major problem that this type of approach faces is how to determine this prototypical meaning. One possibility is to choose the meaning that comprises the main characteristics of the array of possible meanings of the lexical item under investigation. For example, Brugman (1981) chooses ‘the above-across’ sense as the ‘central’ or ‘prototypical’ meaning for the preposition *over*. This kind of approach is nevertheless problematic because, many times, the proposed prototypical meaning of a lexical item does not correspond to what appears to be its prototypical meaning in corpus data or language acquisition data. As Ibarretxe-Antuñano and Serratrice (1999) have pointed out, for instance, in the case of *over*, the meaning ‘above-across’ proposed by Brugman does not occur frequently and is acquired quite late by children. This suggests that prototypicality might not (solely) be determined by Brugman’s criteria, but also by frequency and the order of acquisition.

With respect to locational cases, I propose that their prototypical meanings are related to the domain of space since their spatial senses seem to

be the most prominent, typical and etymologically oldest (see Trask 1997 for etymological information). As such, the prototypical meaning for each of these cases would be the following:

Locative case	→	‘location’
Ablative case	→	‘source’
Allative case	→	‘goal’
Directional allative case	→	‘direction’
Terminative allative case	→	‘endpoint’

The other the senses, as I will briefly explain below, are linked to the prototypical sense by means of a complex hierarchical network of metaphors and compositional polysemy.

2.2 *Image schemas and profiling in locational cases*

Image schemas are abstract and preconceptual gestalt structures which are based on our perceptual interaction, bodily experience, and motor programs, and which organize our experience and comprehension. They are recurring structures with a “relatively small number of parts or components that stand in very definite relations to one another” (Johnson 1987: 79).

Image schemas serve an important function in the characterization of Basque locational cases, in that they give us an idea of the preconceptual structures underlying the conceptualization of space in Basque. Concomitantly, they help to differentiate between locational cases, and as such constitute the cognitive motivation or explanation why particular sets of meanings are associated with particular cases. From the inventory of possible image schemas (see Johnson 1987, Krzeszowski 1993), two appear basic to the analysis of Basque locational cases: the SOURCE-PATH-GOAL (SPG) schema, and the BOUNDARY (BND) schema. The SOURCE-PATH-GOAL image schema (Johnson 1987) structures a finite path. It has three roles or components: source (starting point), path (the route from the source to the goal), and goal (intended destination). The BOUNDARY image schema (Bretones, Cristóbal, and Ibarretxe, to appear) links a boundary to a one-, two-, or three- dimensional space. It has three roles or components: region A (the space within the boundary), the boundary, and region B (the space outside the boundary). A schematic representation of these two images schemas is presented in Figure 1 and 2.

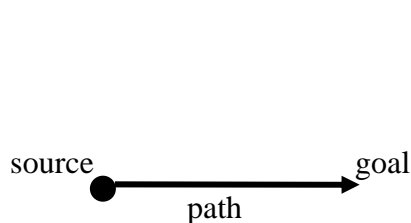


Figure 1: SOURCE-PATH-GOAL schema

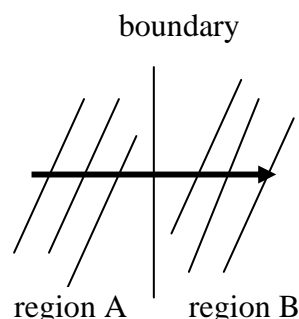


Figure 2: BOUNDARY schema

As we can see from these definitions, each of the schemas has a number of roles or components. Importantly, it is the profiling and ‘binding’ of specific roles within these schemas that actually distinguishes between the locational cases.^{18,19} Table 2 illustrates a possible distribution of image schemas and profiled roles over the various locational cases.

Table 2. Characterization of locational cases by image schemas and profiling

Locational case	Image schema	Profiled Role
Locative	BOUNDARY schema	Region A
Ablative	SOURCE-PATH-GOAL schema	Source
Allative	SOURCE-PATH-GOAL schema	Goal
Directional allative	SOURCE-PATH-GOAL schema	Goal + Path (vector)
Terminative allative	SOURCE-PATH-GOAL schema	Goal + Path (limits-end)

The locative case is characterized by the role of region A in the BOUNDARY image schema. This region A is understood as a one-, two-, or three-dimensional region with permeable boundaries.²⁰ The SOURCE-PATH-GOAL image schema defines both the ablative and the allative cases. However, the profiled roles in each case are different, with the source characterizing the ablative case, and the goal the allative cases.

An issue that needs further investigation is how to characterize the differences among the three allative cases. I would like to argue that the directional and terminative allatives can be viewed as subtypes of the allative case. This does not seem unreasonable (i) because they are morphologically²¹ as well as semantically derived from the allative, and (ii) because the allative itself, in some specific contexts and with the appropriate co-occurring elements, functions similarly to either of these two cases. In other words, the

allative case may be interpreted as a directional allative in cases such as (4), and as a terminative allative in cases such as (5).

- (4) *Etxera abiatu zen.*
 house.ALL.SG set.off.PERF aux.3SG
 ‘S/He went towards the house.’

- (5) *Etxera iritsi nintzen.*
 house.ALL.SG arrive.PERF aux.1SG
 ‘I arrived home.’

The different interpretation of the allative case in these two sentences depends on the semantics of the co-occurring elements.²² In (4), the verb *abiatu* ‘set off’ implies directionality, and consequently, the allative is interpreted as a directional allative. In (5), on the other hand, the verb *iritsi* ‘arrive’ implies an endpoint, and therefore, the allative case is interpreted as a terminative allative.

Note that the directional and terminative interpretations of the allative case may also be linked to the aspectual characteristics of the verb. In (6) and (7), it is not the lexical semantics of the motion verb *joan* ‘go’ that gives rise to either one of the two interpretations, as it does in (4) and (5); rather, it is the imperfective verbal aspect of *joan* in (6) which triggers the directional interpretation, and its perfective aspect in (7) which gives rise to the terminative interpretation. In (6), the use of the imperfective *nichoan* tells us that this person meets those friends somewhere on his way home. In (7), the use of the perfective *joan nintzen* tells us that this person actually arrived at his final destination.

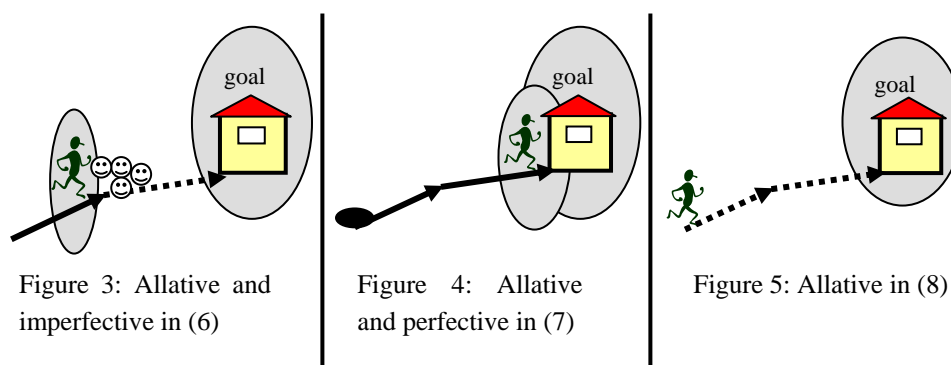
- (6) *Zure lagunak ikusi ninduenean, etxera*
 your friend.ERG.SG see.PERF aux.1SG.3SG house.ALL.SG
nichoan.
 go.1SG.PAST.IMPF
 ‘When your friend saw me I was going home.’

- (7) *Erosketak egin ondoren etxera joan*
 shopping.ABS.PL make.PERF after house.ALL.SG go.PERF
nintzen
 aux.1SG.PAST
 ‘After I did my shopping I went home.’

There are, of course, cases where the necessary contextual elements (the lexical nor aspectual characteristics of the verb) are not present to trigger a directional or terminative interpretation of the allative case. In sentences like (8), the allative case simply profiles the goal, the house, as the intended destination, but it does not specify whether this person reaches its goal or whether he is somewhere on the way home. What is important here is that the goal of motion should be the house.

- (8) *Zoaz etxera!*
 go.2SG.PRES home.ALL.SG
 ‘Go home!’

The different interpretations of the allative in examples (6)–(8) are represented in Figures 3, 4, and 5. The shaded area shows what is profiled in each example. The straight-line arrow represents the path already covered by the person moving and the dotted arrow the path still to be covered.



Based on the data in examples (4)–(8), the directional and terminative allatives can be said to inherit from the allative case the goal as the profiled role. What crucially distinguishes these two cases from the allative is that, on top of profiling the goal, they also profile the path, or to be more precise, some of the components of the path. The directional allative profiles what Talmy (2000) calls the ‘vector’, i.e., the directionality of the path. The terminative allative, on the other hand, profiles one of the limits of the path, i.e., its endpoint.²³ This ‘extra’ profiled role is absent from the allative case per se, and it only comes into play if the allative case is combined with the appropriate co-occurring

elements (semantic content in verbs as in (4) and (5) or aspectual characteristics in (6) and (7)).

In addition to characterizing different types of locational cases, image schemas are also necessary for understanding, explaining, and formalizing some of the intuitions that speakers have about their language, and that are sometimes superseded in reference grammars. A very good example to illustrate this situation is the alternation of the locative case and the allative case with verbal predicates such as *sartu* ‘enter’.²⁴ Let us look at the following examples:

- (9) *Mikel gelan sartu da.*
 mikelroom.LOC.SG enter.PERF aux.3SG
 ‘Michael went into the room.’
- (10) *Mikel gelara sartu da.*
 Mikel room.ALL.SG enter.PERF aux.3SG
 ‘Michael went into the room.’

Both examples describe the same type of event: there is a trajector (*Mikel*) who moves along a path, crosses a boundary, and ends up inside a landmark (*gela*). However, the inferences from these examples are not the same. In (9), the inference is that Mikel went inside the room and stayed there for some time; this information is absent in (10), which only allows the inference that Mikel reached his intended destination, without any further specification of the time he spent there. In other words, there is a durational-transitory contrast between these two cases. As the elements making up sentences (9) and (10) are identical except for the choice of locational case, the key to the different inferences must lie with the locational case. But how can we show this?

In my opinion, the fine-grained differences between (9) and (10) can be neatly explained and formalized by means of image schemas, as well as via the bindings that occur between the roles that characterize these image schemas, and through the compositional polysemy between these cases and the path verb.

The verb *sartu* ‘enter’ activates two kinds of schemas: a BOUNDARY schema, and a SOURCE-PATH-GOAL schema. In the BOUNDARY schema, the profiled roles for the verb *sartu* are the Boundary and Region B roles, and in the SOURCE-PATH-GOAL schema, the profiled role is the Goal. The Region B role is equivalent, or in Embodied Construction Grammar terms, ‘bound’, to the Goal role. In (9), the locative case activates the BOUNDARY schema, and the

profiled role is Region B.²⁵ In other words, the locative case does not involve any motion, but a static situation which is ‘doubly’ profiled both by both the verb and the locative case, with the goal of motion only being profiled by the verb. In (10), on the contrary, the allative case brings in a SOURCE-PATH-GOAL schema with the Goal role profiled. Consequently, the goal of motion in this sentence is ‘doubly’ profiled both by the allative and by the verb, whereas the stativeness is only brought in by the verb. These differences are schematically represented in Figure 6.

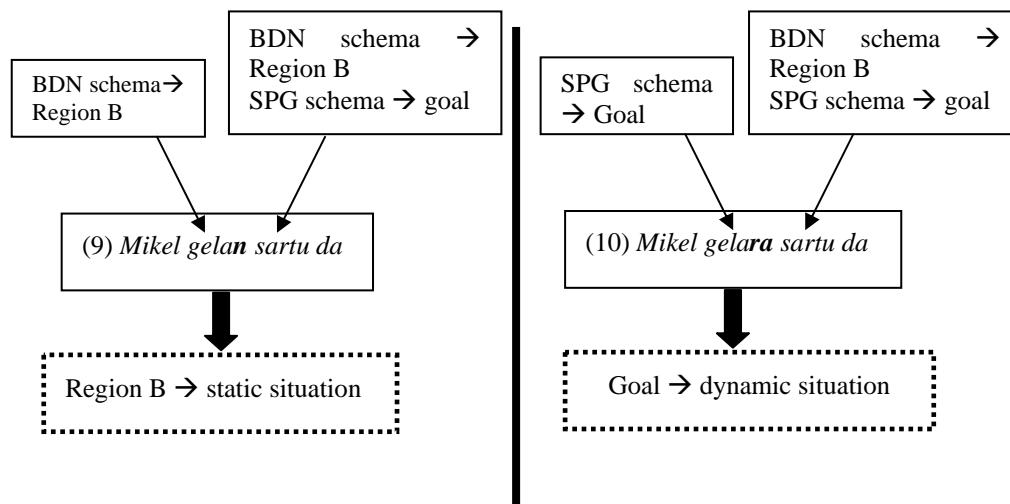


Figure 6: differences between sentences (9) and (10)

The differently profiled roles in these two locational cases together with those in the verb are responsible for the different inferences in these otherwise ‘almost identical’ sentences. As I will explain in more detail in the following section, a sentence like (9) obtains its meaning by means of ‘compositional polysemy’.²⁶ The basic idea is that the different polysemous senses of a lexical item are obtained through the interaction of the semantic content of both the lexical item itself and its various co-occurring elements. The weight of the semantics of these elements in the creation of polysemous senses is not always the same, as its importance may vary according to the degree of semantic influence of these elements. Cases where it is possible to predict what the interpretation is by means of the choice of arguments are examples of ‘predictable polysemy’; those in which it is not possible this prediction are instances of ‘unpredictable polysemy’ (Ibarretxe-Antuñano 1999b).

As such, the meaning of ‘durational goal of motion’ in (9) is obtained as a result of the semantics of the locative case (‘static’) in conjunction with the semantics of the verb *sartu* (‘motion to the goal’). Without these two elements such an inference would not be possible. If we got rid of either one of these elements and replaced them by others, we would end up with at least three different possibilities: (i) with a sentence whose meaning is like that in (10), i.e. ‘motion to the goal’; (ii) with an infelicitous sentence like (11), where the locative and the motion verb are not compatible; or (iii) with a stative sentence like (12), where the locative and the verb *egon* ‘stay’ convey a static meaning.

- (11) **Mikel gelan joan da.*
 mikel room.LOC.SG go.PERF aux.3SG
 ‘Michael went in the room.’

- (12) *Mikel gelan dago.*
 mikel room.LOC.SG stays.3SG
 ‘Michael is in the room.’

The reverse situation would hold for sentence (10). A sentence with an allative and a static verb would be infelicitous, **Mikel gelara dago* [mikel room.ALL.SG stays.3SG], and a sentence with an allative and a motion verb would convey a motion to the goal meaning, *Mikel gelara doa* [mikel room.ALL.SG goes].

The fact that there are infelicitous sentences indicates that we cannot simply ‘put together’ different elements in order to obtain a ‘compositional meaning’, as it is suggested in traditional Fregean semantics. Meanings are compositional, but the elements that we put together in a compositional fashion are constrained by the semantic properties intrinsic to what they mean. In other words, only elements whose semantic properties are ‘compatible’ can produce semantic felicitous sentences.²⁷

2.3 *Compositional polysemy in locational cases*

As I have already pointed out the importance of compositional polysemy in establishing particular senses of a locational case, I will here analyze one more example in order to elaborate a little bit further the basic concepts of predictable and unpredictable compositional polysemy. In order to do so, I will focus the discussion on the two spatial meanings in the ablative case: ‘source’ and ‘through’. The basic idea I would like to put forward is that the prototypical meaning of the Basque ablative case is ‘source’, and that the

‘through’ meaning is an extension obtained by means of ‘compositional polysemy’ in different degrees of compositionality. Consider the following example:

- (13) *Mikel leihotik sartu da.*
 mikel window.ABL.SG enter.PERF aux.3SG
 ‘Michael went into the room through the window.’

In (13), the ablative case conveys the meaning of ‘through’. This is obtained as a result of the interaction of three different factors: (i) the semantics of *sartu* ‘enter’—a verb with a profiled Region B role and Boundary role of the BOUNDARY schema and the goal role of the SOURCE-PATH-GOAL schema, (ii) the semantic content of *leiho* ‘window’—an entity which may function as an entrance, and (iii) the ablative case itself indicating ‘source’. In other words, the meaning ‘through’ can be said to be driven by the combined semantics of these elements: the verb *sartu* involves a boundary crossing of some sort, and the fact that the window serves as an entrance, a traversable boundary, allows or predisposes the ablative to take the meaning ‘through’, in addition to its prototypical ‘source’ meaning. It is important to point out that the ‘source’ meaning of the ablative is not canceled by its ‘through’ meaning; rather, as a result of the interaction of the semantic content of the co-occurring elements, the ‘through’ meaning is added to the ‘source’ meaning—indeed, the window is still the source of the boundary-crossing motion into the room.

Let us now examine a slightly different example:

- (14) *Mikel leihotik etorri da.*
 mikel window.ABL.SG come.PERF aux.3SG
 ‘Michael came into the room through the window/Michael came from the window.’

Sentence (14) is ambiguous. Both interpretations, ‘through’ as illustrated in Figure 7 and ‘source’ as illustrated in Figure 8, are possible if we do not take into account the disambiguating external context.

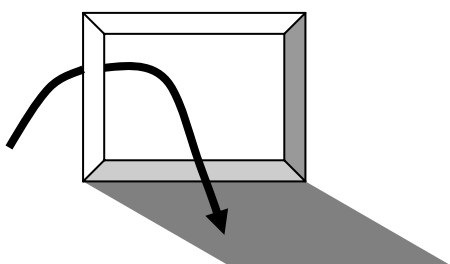


Figure 7: ‘through’ in ablative

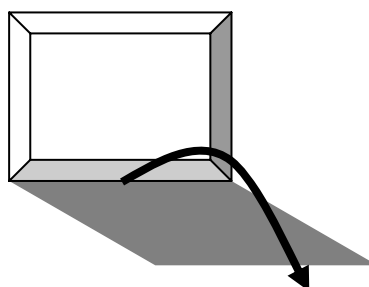


Figure 8: ‘source’ in ablative

Sentence (14) differs from sentence (13) in that, instead of the boundary-crossing verb *sartu*, it contains the deictic motion verb *etorri* ‘come’. Whereas semantics of the verb *sartu* in (13) picks up on one of the possible meanings of window, i.e., that of traversable means of access, thus triggering the meaning ‘through’, the verb *etorri* does not ‘favor’ one interpretation over the other. In other words, *etorri* can be applied both to ‘through’ and ‘source’ situations. This ambiguity in (14) is further compounded by the fact that the landmark *leiho* ‘window’ is a traversable means of access, but at the same time it is also a reference point functioning as the source of motion. As such, then, the meaning of (13) is ‘predicted’ by the verb *sartu*, whereas the meaning of (14) is ‘not predicted’ by the verb *etorri*. Sentences such as (13) are cases of ‘predictable polysemy’; sentences such as that in (14) are cases of ‘unpredictable polysemy’.

2.4 Metaphor

As we have seen in section 1.2, locational cases can also convey non-physical spatial meanings, such as ‘time reference’, ‘purpose’, ‘manner’, and so on. My claim is that these are extended senses of the prototypical meanings of locational cases, and that these extensions are derived by means of metaphor. Metaphor, then, is a second way of establishing extended senses of a locational case—in addition to compositional polysemy.

Let us first consider ‘time’. The link between space and time has been the object of research in numerous studies within different disciplines in linguistics. It has now been well established that one of the most common and regular semantic changes in languages is the unidirectional shift from space onto time (cf. Haspelmath 1997, Traugott 2001). ‘Time’ is also one of the most recurrent extended meanings of locational cases: except for the directional and terminative allatives, the other three locational cases have meaning extensions into the domain of time.

Several proposals have been put forward to explain how the relationship between space and time takes place. Langacker (1987, 1991b) for instance, proposes the concept of ‘abstract motion’, i.e., the schematic conception of motion applied to non-spatial domains. Other authors within Cognitive Linguistics view the semantic extension from space to time as resulting from a metaphorical mapping, where space is the source domain, and time is the target domain (Lakoff and Johnson 1980, 1999). So for example, in a sentence like (15), the metaphor at play would be LOCATION IN TIME IS LOCATION IN SPACE:²⁸

- (15) *1972. urtean jaio nintzen.*
 1972nd year.LOC.SG be.born aux.1SG
 ‘I was born in the year 1972.’

Another instance of the general metaphor of TIME IS SPACE is illustrated in (16):

- (16) *1995etik 1999ra Edinburgon bizi nintzen.*
 1999.ABL.SG 1999.ALL.SG edinburgh.LOC.SG live aux.1SG
 ‘I lived in Edinburgh from 1995 to 1999.’

In this sentence, the metaphor is PERIOD OF TIME IS A COMPLETE PATH.²⁹ That is, the physical distance between a source and a goal of motion is mapped onto the domain of time, so that the distance is understood as the period of time between two different points in time, the years 1995 and 1999.

In addition to the extended meaning ‘time’, locational cases may express ‘purpose’, as illustrated in sentence (17).

- (17) *Perretxikutara joan da.*
 mushroom. INDF.ALL go.PERF aux.3SG
 ‘He went to pick up mushrooms.’

In this sentence, the allative conveys the meaning of ‘purpose’. This extension of meaning, which is reported to be very common cross-linguistically (Kabata and Rice 2001; Rice and Kabata 2002), can be explained by means of the metaphor PURPOSES ARE DESTINATIONS (Lakoff 1987, 1993). The mapping in this metaphor takes place from the physical domain of goal of motion, onto a more abstract domain where goals are no longer physical destinations but metaphorical goals. In (17), this metaphorical goal is to pick up mushrooms.

3. Conclusions

Basque locational cases have a series of different meanings mainly in the domains of ‘space’, ‘motion’, ‘time’, ‘manner’, ‘activity’, and ‘purpose’. Basque descriptive grammars usually list all of these different usages without focusing on basic questions such as how and why these meanings are conveyed by these cases, and how these meanings interrelate. The goal of this paper has

been to put forward some ideas that are crucial for a better and more comprehensive understanding of how polysemy in Basque locational cases works. I have focused my analysis around three issues and have proposed different mechanisms in order to account for them. These are:

- a. *Cognitive motivation.* The polysemous senses (or semantic extensions) of a locational case can be traced back to a conceptual basis, which can be explained in terms of a particular image schema and profile.
- b. *Internal structure.* The semantic extensions of each locational case are organized around a prototypical meaning resulting in a complex lexical network.
- c. *Linguistic realization.* The polysemous senses of a locational cases are obtained by means of compositional polysemy (i.e., by taking into account the semantic content of the co-occurring elements) and by metaphor.

My main argument has been that the different meanings provided for each of the locational cases are not to be considered ‘different’ senses, but ‘motivated’ extensions stemming from a prototypical sense: ‘location in space’ for the locative case, ‘source of motion’ for the ablative case, and ‘goal of motion’ for the allative cases.

I have suggested that a possible way to formalize and explain the different conceptualization of space and motion in locational cases is by means of ‘image schemas’ and by the profiling of relevant roles in each image schema. As such, the BOUNDARY Schema with the profiled role Region A defines the locative; the SOURCE-PATH-GOAL schema with the profiled role Source defines the ablative; the SOURCE-PATH-GOAL schema with the profiled role of Goal defines the allative; the SOURCE-PATH-GOAL schema with the profiled roles of Goal and Path (vector) defines the directional allative; and the SOURCE-PATH-GOAL schema with the profiled roles of Goal and Path (limits-end) defines the terminative allative.

Image schemas and profiling are useful mechanisms not only because they allow us to formalize the conceptualization of locational cases but also because they show us the interactions that occur between these locational cases and the other co-occurring elements, and the fine-grained semantic distinctions that they provoke. In order to illustrate this point, I analyzed the case of the verb *sartu* ‘enter’ and its interaction with the allative and locative. In Basque, the goal of motion in the verb *sartu* can take either the allative case or the locative case—it is in this specific context that the locative is said to convey

the meaning ‘into’. Depending on the case the verb *sartu* takes, the entering event is conceptualized differently: as transitory and dynamic with the allative case and as durational and static with the locative case. I have argued that this differential conceptualization results from the interaction of (i) the specific roles that are profiled in each of these two cases, namely the Region B role of the BOUNDARY schema in the locative case and the Goal role of the SOURCE-PATH-GOAL schema in the allative case, with (ii) the two schemas that the verb *sartu* may activate, the BOUNDARY schema and the SOURCE-PATH-GOAL schema. When we use the locative case, there is a double profiling of the BOUNDARY schema, which results in the static reading; when we use the allative case, there is a double profiling of the SOURCE-PATH-GOAL schema, resulting in the dynamic reading.

Prototypical meanings and their extended meanings form a lexical network. The links between prototypical senses and semantic extensions can be explained by means of different devices: compositional polysemy and metaphor. Compositional polysemy accounts for those cases where the semantic extension is obtained as a result of the semantic content of the locational case itself as well as that of the co-occurring elements. In that respect, three examples were examined: the meaning ‘into’ in the locative case, the meaning ‘endpoint’ and ‘directional’ in the allative, and the meaning ‘through’ in the ablative. Metaphor allows us to explain the links between the prototypical spatial meaning of these cases and their semantic extensions in the domains of time and purpose. Thus, the meaning ‘location in time’ in the locative case is structured by means of the LOCATION IN TIME IS LOCATION IN SPACE metaphor, and the meaning ‘period of time’ in the ablative and allative via the A PERIOD OF TIME IS A COMPLETE PATH metaphor. Then again, the meaning ‘purpose’ in the allative is the result of the metaphor PURPOSES ARE DESTINATIONS.

Figure 9 schematizes the lexical networks characterizing the locational cases we have analyzed in this paper.

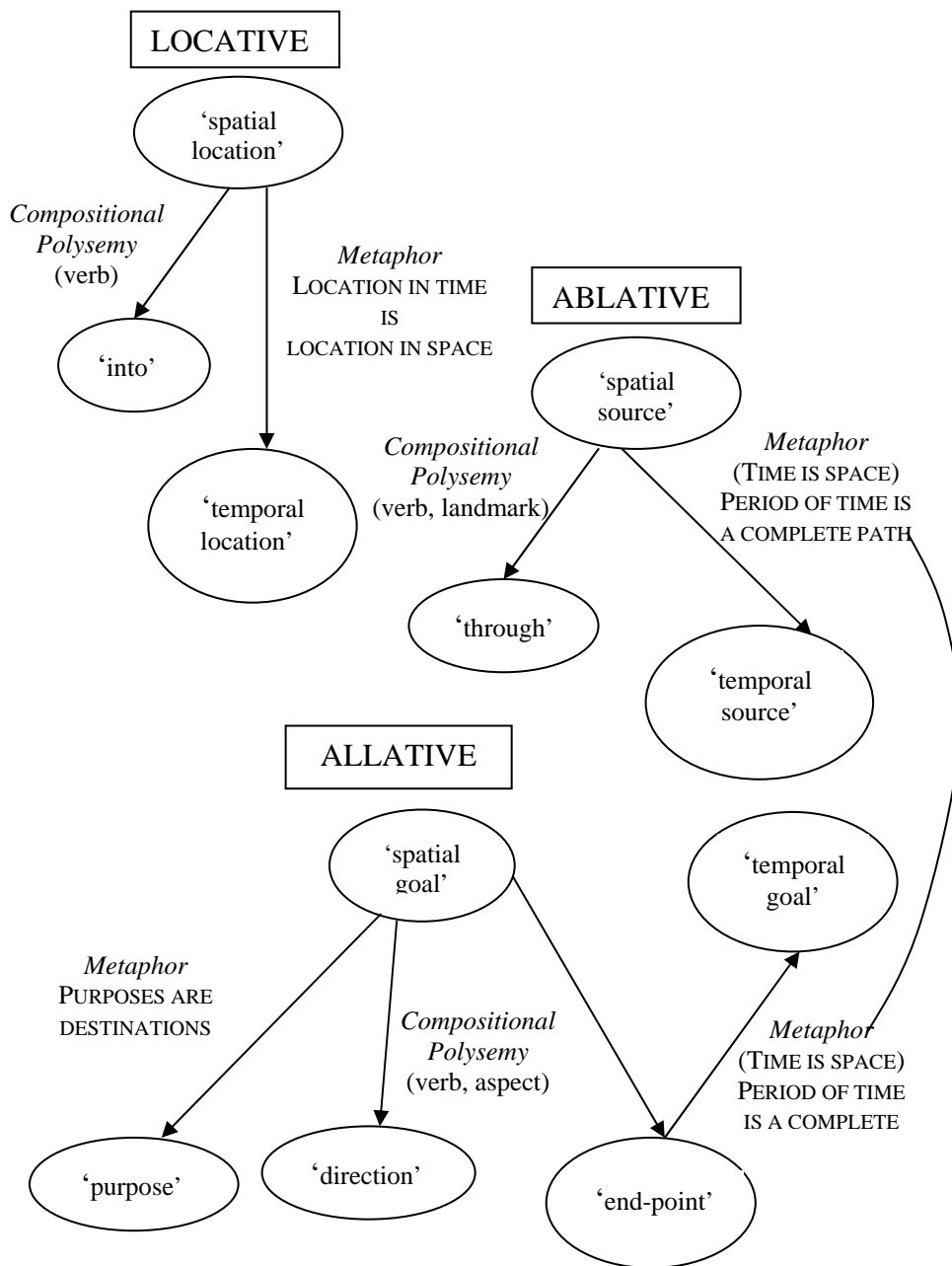


Figure 9: Lexical Networks in Basque locational cases

The analyses presented in this paper are far from being definitive. They are to be taken as a first attempt to view locational cases not only as mere space markers but also as the ‘motivated carriers’ of a wide array of meanings. The proposals and tools utilized in this analysis aim at providing a basis for future research not only in the domain of locational cases, but also in that of postpositions, and in general, in the area of space in Basque.

Notes

* This study is supported by Grants BFI99.53.DK and BFI01.429.E from the Basque Country Government’s Department of Education, Universities, and Research. The research reported here was carried out while I was a research fellow in the Department of Linguistics at the University of California, Berkeley. I would like to thank Hubert Cuyckens for his helpful comments and suggestions. The author can be contacted at <iraide@unizar.es>.

1. This is why some authors working within the Generative paradigm have treated locational cases not as cases, but as ‘postpositions’ (Eguzkitza 1997, 1998) or ‘suffix postpositions’ (Odriozola 1999).

2. The origin of the morph *gan* is not very clear. Jacobsen (1977) argues that *-gan* is the default locative ending and considers the locative suffix *-n* as a reduction of *gan*. On the other hand, authors such as de Rijk (1981) and Trask (1997) disagree with this view and see the ending *-n* as the ancient locative suffix. More specifically, Trask suggests that *gan* is originally a postposition etymologically related to the local noun *gain* ‘top’, and proposes that “side by side with the original locative *-n*, this postposition came to be used to construct an alternative locative formation: **etxe gan* ‘house top’” (1997: 203). In this paper, we will use the gloss *gan.LOC* whenever we find an animate head in the locative; in the other locational cases we will use a dash between the *gan* and the locational ending, e.g. *gan-ABL*.

3. Throughout this paper, the following abbreviations are used: ABL Ablative; ABS Absolute; ALL Allative; DET Determiner; DIR Directional allative; ERG Ergative; GEN Genitive; GER Gerund; TER Terminative allative; IMPF Imperfective; INDF Indefinite; INST Instrumental; LOC Locative; PART Participle; PRF Perfective; PL Plural; SG Singular.

4. As we will see later, an *-a-* shows up in the locative case in examples such as *etxe-an* ‘at home’. Although at first sight, this *-a-* might resemble the article, authors such as Trask (1997) reject this possibility on the basis of the unexpected locative singular ending in consonant-final stems *-ean*, as in *lan-ean* [work-LOC] ‘at work’. This *-e-* is an epenthetic vowel used in consonant-final stems. This form seems to indicate a lost consonant, most probably a *g-*, which is generally lost intervocalically (see Jacobsen 1977; de Rijk 1981). In this paper, I will gloss each of these suffixes, *-n*, *-an*, *-ean*, as locative.

5. For an explanation of the occurrence of *-e-* in the plural form see Trask (1997: 203).

6. There are differences between vowel-final and consonant-final stems with respect to the inflectional endings. In some occasions, it is necessary to insert an epenthetic vowel *-e-* in consonant-final stems and an epenthetic consonant *-r-* in vowel-final stems. These epenthetic sounds are represented in brackets in Table 1.

7. The different meanings of the locational cases, as well as their labels, are taken from traditional grammars (see reference section). This means that I do not necessarily agree with the views presented in this section. For a more detailed and comprehensive discussion of these locational cases, see Ibarretxe-Antuñano (2001).

8. Basque case markers are attached to the last constituent of the NP and not to each of the elements making up the NP (see Trask 1997).

9. The *-e-* in this example is an epenthetic vowel that appears after the stem to break consonant sequences with consonant-final stems.

10. The specification of source and goal of motion is a very frequent and common strategy in Basque, not only in temporal clauses as in the example *astelehenetik ostiralera* [Monday.ABL Friday.ALL] ‘from Monday to Friday’ but also in spatial ones *amildegitik behera* [cliff.ABL below.ALL] ‘down from the cliff’. Ibarretxe-Antuñano (2004a: 97) calls this strategy the ‘complete path hypothesis’, i.e., “the tendency to linguistically express both the source and goal of a translational motion in the same clause, even in cases where one of the components is pleonastic”. For more information on this hypothesis in Basque see Ibarretxe-Antuñano (2004b, in press) and Garai and Ibarretxe-Antuñano (2002).

11. As I have just explained, the temporal equivalent of ‘until, up to’ is expressed by the postposition *arte*. For a more detailed discussion on this issue, see Euskaltzaindia (1991: 267–270) and Zarate (1975).

12. A detailed account of these different perspectives lies beyond the scope of this paper (those interested may consult Agud 1980 and Blake 2001). Nevertheless, it might be useful to present a brief account of some of the major views in order to show that the three areas mentioned above have been largely neglected in the study of case and case systems.

13. Syntactic cases are the nominative, accusative, absolutive, ergative, genitive, and dative. Semantic cases are the remaining ones, including locational cases.

14. Authors such as Kurylowicz (1964: 181–183) try to solve this type of conflictive situations by distinguishing the ‘primary functions’—that is, the grammatical ones—from the rest of the possible ‘adverbial’ uses determined by context.

15. This distinction is very much used in recent theories of case. The labels change but the hierarchical idea remains. For example, in the Perlmutter and Postal’s relational grammar paradigm (Perlmutter 1983), there is a distinction between ‘terms’ (syntactic) and ‘obliques’ (semantic). The ‘tyranny’ of the syntactic criteria is somewhat reversed in recent accounts of case based on semantic roles more than on just grammatical functions; see for instance, Fillmore’s Case Grammar (1968, 1971), among others.

16. This general meaning is what Jakobson (1990 [1936]) calls the *intensional* meaning or *Gesamtbedeutung*, and it is opposed to the *extensional* or *Sonderbedeutung*, particular meanings in specific syntactic and/or lexical conditions.

17. Lexical networks are structures that graphically show the relations among the different senses on the basis of how far they are conceptually situated from each other and how they are interconnected. For more information see Lakoff 1987, Langacker 1991 b, Rice 1996, Sandra and Rice 1995.

18. Langacker (1987: 491) defines a ‘profile’ as “the entity designated by a semantic structure. It ... functions as the focal point within the objective scene, and achieves a special degree of prominence (resulting in one level of figure/ground organization).”

19. In recent research within the framework of Embodied Construction Grammar (Bergen, Chang, and Paskin, in press; see also Bretones, Cristóbal, and Ibarretxe, to appear), image

schemas have been understood as structures that can be retrieved by simulation in the brain. The relations between different schemas are presented as semantic constraints for specific constructions; these relations are expressed in terms of ‘bindings’ between the roles or components of these image schemas.

20. The selection of the dimensionality will be determined by the specific characteristics of the landmarks.

21. The terminative allative *-raino* is formed with the allative *-ra* and the Bizkaian postposition *giño* ‘until’. According to de Rijk (1992: 704), this *giño* could be a reduction of the form **-gain-do*, which in turn is composed of the noun *gain* ‘top’ and an archaic allative ending **-do*. The directional allative *-rantz* (*-runtz* and *-rontz* in Bizkaian and Gipuzkoan dialects, respectively), on the other hand, is formed with the allative *-ra* and possibly the nominal expression **untz* with a similar meaning to Latin *uersum* (Gómez 2001).

22. These are cases of ‘compositional polysemy’; see section 2.3.

23. The terminative allative is, in other words, a telic case.

24. This is also one of those cases where the locative case has been attributed the meaning of ‘into’.

25. It was stated earlier that the profiled role for the locative case is Region A, and not B. In this example, it is Region B due to deictic reasons. When we use the verb *atera* ‘exit’, the profiled role is Region A because this is the area where the motion starts before crossing the boundary. When we use the verb *sartu* ‘enter’ as in these two examples, the profiled Region is B, since the focus of our attention now lies on the goal, with the trajector starting in Region A, crossing the boundary, and arriving at Region B.

26. The concept of ‘compositional polysemy’ stems from that of ‘gradable polysemy’ developed in Ibarretxe-Antuñano (1999a). It shares with other approaches such as Sinha and Kuteva’s (1995) ‘distributional spatial semantics’ and Zlatev’s (1997) ‘holistic spatial semantics’ the idea that the meaning of lexical items (locational cases in this paper) is contextually dependent on the meaning of syntagmatically co-present items.

27. Ibarretxe-Antuñano (1999a) calls this constraint ‘property requirement’.

28. We have to bear in mind too that this is another case of ‘compositional polysemy’ since the mention of the lexical item *urte* triggers this interpretation in the domain of time.

29. Recall that a complete path (Ibarretxe-Antuñano 2004a,b, in press) involves expressing both the source and the goal of motion, even in cases where one of the components is pleonastic (cf. note 8).

References

- Agud, A. 1980. *Historia y teoría de los casos*. [History and theory of Case]. Madrid: Gredos.
- Bergen, B., Chang N., and Paskin, M. In press. “Simulation-based language understanding in Embodied Construction Grammar.” In *Construction Grammar(s): Cognitive and Cross-Language Dimensions*, J. Östman and M. Fried (eds.). Amsterdam: John Benjamins.
- Blake, B.J. 2001. *Case*. Cambridge: Cambridge University Press.

- Bretones, C., Cristóbal, M., and Ibarretxe, I. To appear. "The construction salir-de in Spanish: How Spanish speakers conceptualise exiting events." In *Construction Grammar: Back to the Roots*, M. Fried and H. Boas (eds.). Amsterdam: John Benjamins.
- Brugman, C. 1981. *The Story of Over*. M.A. thesis, University of California, Berkeley. Published, 1988, as *The Story of Over: Polysemy, Semantics, and the Structure of the Lexicon*. New York: Garland.
- De Rijk, R. 1981. "Euskal morfologiaren zenbait gorabehera [Some issues on Basque morphology]." In *Euskal linguistika eta literatura: Bide berriak* [Basque linguistics and literature: New paths], 83–101. Bilbo: Deustuko Unibertsitatea.
- De Rijk, R. 1992. "'Nunc' vasconice". *Anuario del Seminario de Filología Vasca 'Julio de Urquijo'* 26: 695–729.
- Eguzkitza, A. 1997. 'Kasuak eta postposizioak: deklinabidea eta postposiziobidea' [Cases and postpositions: declension and postposition]. *Hizpide* 40: 39–52.
- Eguzkitza, A. 1998. "Postposizioak euskal gramatikan [Postpositions in Basque grammar]." In *Studia Philologica: In Honorem Alfonso Irigoien*, I. Turrez, A. Arejita, and C. Isasi (eds.), 83–88. Bilbao: Deustuko Unibertsitatea.
- Euskaltzaindia. 1991. *Euskal Gramatika: Lehen Urratsak I-II* [Basque grammar: First steps I-II]. Iruñea: Euskaltzaindia.
- Fillmore, C.J. 1968. "The case for case." In *Universals in Linguistic Theory*, E. Bach and R.T. Harms (eds.), 1–88. London: Holt, Rinehart and Winston.
- Fillmore, C.J. 1971. "Some problems for case grammar." *Working Papers in Linguistics, Ohio State University* 10: 245–265.
- Garai, Koldo J. and Ibarretxe-Antuñano, I. 2002. "From x to y: The 'Complete Path' construction in Basque". *Odense Working Papers in Language and Communication* 23: 289–311.
- Gomez, R. 2001. "De re etymologica: vasc. *-(r)antz* 'hacia'". Unpublished manuscript. University of the Basque Country-LEHIA.
- Haspelmath, M. 1997. *From Space to Time: Temporal Adverbials in the World's languages*. Munich and Newcastle: Lincom Europa.
- Hjelmslev, L. 1935. *La catégorie des cas: Etude de grammaire général I*. Copenhagen: Munksgaard.
- Hjelmslev, L. 1937. *La catégorie des cas: Etude de grammaire général II*. Copenhagen: Munksgaard.
- Ibarretxe-Antuñano, I. 1999a. *Polysemy and Metaphor in Perception Verbs: A Cross-linguistic Study*. Ph.D. thesis, University of Edinburgh.
- Ibarretxe-Antuñano, I. 1999b. "Predictable vs. unpredictable polysemy." In *LACUS Forum* 25: 201–211.
- Ibarretxe-Antuñano, I. 2001. "An overview of Basque locational cases: Old descriptions, new approaches." *International Computer Science Institute Technical Report No. 01-006*. University of California, Berkeley.

- Ibarretxe-Antuñano, I. 2004a. "Motion events in Basque narratives." In *Relating Events in Narrative: Typological and Contextual Perspectives*, S. Stromqvist and L. Verhoeven (eds.), 89-112. Mahwah, NJ: Lawrence Erlbaum.
- Ibarretxe-Antuñano, I. 2004b. "Language typologies in our language use: the case of Basque motion events in oral adult narratives". *Cognitive Linguistics* 15.3: 317-349.
- Ibarretxe-Antuñano, I. In press. "Basque: Verb-framed or satellite-framed?". *Linguistic Typology*.
- Ibarretxe-Antuñano, I. and Serratrice, L. 1999. "Making sense of 'over': A study in acquisition." Paper presented at the Sixth International Cognitive Linguistics Conference. Stockholm, Sweden.
- Jacobsen, W.H. 1977. "The Basque locative suffix." In *Anglo-American Contributions to Basque Studies: Essays in Honor of Jon Bilbao*. W.A. Douglas, R.W. Etulain, and W.H. Jacobsen (eds.), 163-168. Reno: Desert Research Institute Publications on the Social Sciences, no 13.
- Jakobson, R. 1990 [1936]. "Contribution to the general theory of case." In R. Jakobson, *On Language*, L.R. Waugh and M. Monville-Burston (eds.), 332-385. Harvard: Harvard University Press.
- Johnson, M. 1987. *The Body in the Mind: The Bodily Basis of Meaning, Reason, and Imagination*. Chicago: The University of Chicago Press.
- Kabata, K. and Rice, S. 2001. "The Allative: In cross-linguistic perspective and extension." Paper presented at the Seventh International Cognitive Linguistics Conference. Santa Barbara, California, U.S.A.
- Kopecka, A. 2002. "The use of spatial grams in Polish." Paper presented at the International Conference on Adpositions of Movement, Catholic University of Leuven (Belgium), January 2002.
- Krzyszowski, T.P. 1993. "The axiological parameter in preconceptional image schemata". In R.A. Geiger and B. Rudzka-Ostyn (eds.), *Conceptualisations and Mental Processing in Language*, 307-329. Berlin and New York: Mouton de Gruyter.
- Kurylowicz, J. 1964. *The Inflectional Categories of Indo-European*. Heidelberg: Carl Winter.
- Laka, Itziar. 1995. *A Brief Grammar of Basque*. Available at <http://www.ehu.es/grammar/index.htm>.
- Lakoff, G. 1987. *Women, Fire, and Dangerous Things: What Categories Reveal about the Mind*. Chicago: The University of Chicago Press.
- Lakoff, G. 1993. "A contemporary theory of metaphor." In *Metaphor and Thought*, A. Ortony (ed.), 202-251. Cambridge: Cambridge University Press.
- Lakoff, G. and Johnson, M. 1980. *Metaphors We Live By*. Chicago: The University of Chicago Press.
- Lakoff, G. and Johnson, M. 1999. *Philosophy in the Flesh: The Embodied Mind and Its Challenge to Western Thought*. New York: Basic Books.

- Langacker, R. 1987. *Foundations of Cognitive Grammar*. Vol. 1, *Theoretical Prerequisites*. Stanford, CA.: Stanford University Press.
- Langacker, R. 1991a. *Foundations of Cognitive Grammar*. Vol. 2, *Descriptive Application*. Stanford, CA.: Stanford University Press.
- Langacker, R. 1991b. *Concept, Image, and Symbol: The Cognitive Basis of Grammar*. Berlin: Mouton de Gruyter.
- Mervis, C.B. and E. Rosch. 1981. "Categorization of natural objects." *Annual Review of Psychology* 32: 89-115.
- Odriozola, J. C. 1999. "Postposizioak EGLUn: Egitura motak eta gramatika-kategoriak [Postpositions in EGLU: Structure types and grammatical categories]." *Euskera* 44: 841-864.
- Perlmutter, D.M. (ed.) 1983. *Studies in relational grammar*, vol. 1. Chicago: The University of Chicago Press.
- Rice, S. 1996. "Prepositional prototypes." In *The Construal of Space in Language and Thought*, M. Pütz and R. Dirven (eds.), 135-165. Berlin: Mouton de Gruyter.
- Rice, S. and Kabata, K. 2002. "From place to person and purpose: Cross-linguistic grammaticalization patterns of the allative. Paper presented at the International Conference on Adpositions of Movement, Catholic University of Leuven (Belgium), January 2002.
- Rosch, E. 1973. "Natural categories." *Cognitive Psychology* 4: 328-350.
- Rosch, E. 1977. "Human categorization." In *Studies in Cross-Cultural Psychology*, vol. 1, N. Warren (ed.), 1-49. London: Academic Press.
- Rosch, E. 1978. "Principles of categorization." In *Cognition and Categorization*, E. Rosch and B.B. Lloyd (eds.), 27-48. Hillsdale, NJ: Lawrence Erlbaum.
- Rosch, E. 1983. "Prototype classification and logical classification." In *New Trends in Cognitive Representation: Challenges to Piaget's Theory*, E. Scholnik (ed.), 73-86. Hillsdale, NJ: Lawrence Erlbaum.
- Rosch, E. and C. Mervis, C. 1975. "Family resemblances: Studies in the internal structure of categories." *Cognitive Psychology* 7: 573-605.
- Sandra, D. and Rice, S. 1995. "Network analyses of prepositional meaning: Mirroring whose mind - the linguist's or the language user's?" *Cognitive Linguistics* 6: 89-130.
- Sinha, C. and Kuteva, T. 1995. "Distributed spatial semantics." *Nordic Journal of Linguistics* 18: 167-199.
- Talmy, L. 2000. *Toward Cognitive Semantics*. 2 Vols. Cambridge, MA: The MIT Press.
- Trask, L.R. 1997. *A History of Basque*. London: Routledge.
- Traugott, E.C. 2001. "How do scalar meanings arise?" *LSA Institute Forum Lecture*, University of California, Santa Barbara, July 2001.
- Zarate, M. 1975. *Euskal deklinabidea (bizkaieratik batuerantz)* [Basque declension (from Bizkaian towards unified Basque)]. Durango: Leopoldo Zugaza editor.

Zlatev, J. 1997. *Situated Embodiment. Studies in the Emergence of Spatial Meaning*. Stockholm: Gotab.

Basque Grammars

Aulestia, G. 1989. *Basque-English Dictionary*. Reno and Las Vegas: University of Nevada Press.

Azkue, R.M. 1969 [1923–1925]. *Morfología Vasca* [Basque morphology]. Bilbao: La Gran Enciclopedia Vasca.

Euskaltzaindia. 1991. *Euskal Gramatik: Lehen Urratsak I-II* [Basque grammar: First steps I-II]. Iruñea: Euskaltzaindia.

Hualde, J.I. and J. Ortiz de Urbina. 2003. *A Grammar of Basque*. Amsterdam and Philadelphia: John Benjamins.

Laffite, P. 1979 [1944]. *Grammaire basque (navarro-labourdin littéraire)* [Basque grammar (Literary Navarrese-Labourdan)]Donostia: Elkar.

Laka, I. 1995. *A Brief Grammar of Basque*. Available at <http://www.ehu.es/grammar/index.htm>.

Ortiz de Urbina, J. 1989. *Some Parameters in the Grammar of Basque*. Dordrecht: Foris.

Villasante, L. 1978 [1983]. *Estudios de Sintaxis Vasca* [Basque syntax studies]. Oñate: Ed. Franciscana Aranzazu.

Zubiri, I. and Zubiri, E.. 1995. *Euskal Gramatika Osoa* [The whole Basque grammar]. Bilbo: Didaktiker.