Masayuki Ishizuka

Chapter 9
Motion Event Descriptions in Navarro-Lapurdian Basque

Abstract: Basque has been claimed to be a verb-framed/head path-coding language. In this study, I will argue that an experiment conducted in Navarro-Lapurdian Basque, which takes into account recent theoretical advancements in this field, presents a different perspective. By broadening the scope of the investigation to include a range of caused-motion expressions as well as self-motion expressions, it is demonstrated that the language's tendency to use head path coding is conditional. This tendency is dependent on the exclusion of other semantic components, namely, deixis and means of causation.

1 Introduction

Typologists and cognitive linguists have been interested in motion event descriptions across languages for at least three decades. Almost every finding in this field is more or less inspired by the seminal papers by Leonard Talmy (1985, 1991, 2000). Subsequent studies have established that many languages exhibit a fairly clear preference concerning whether the path is encoded in the main verb root or in other elements. In his framing typology, Talmy proposes two major types of languages regarding how they encode path in motion event descriptions: "verb-framed" and "satellite-framed". Verb-framed languages describe the path in the main verb, while satellite-framed languages express it in a "satellite", an element that is in a sister relation to the verb (Talmy 2000: 102).

Basque, an isolated language mainly spoken in France and Spain, has been characterized as a verb-framed language in the literature; researchers have claimed that the language shows a tendency to express path in the main verb (e.g., Ibarretxe-Antuñano 2004a, 2004b, 2015). However, most studies of motion event descriptions in Basque have been limited due to inadequacies in Talmy's theoretical framework and insufficient attention given to various types of motion events.

Some of the notions and assumptions in Talmy's (1991, 2000) framing typology have been called into question (see Matsumoto and Kawachi 2020 for a review).

Masayuki Ishizuka, Tokyo University of Agriculture and Technology

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One of the problems recognized concerns his classificatory framework. Matsumoto (2003) points out that the term "satellite" is too restrictive to cover the entire range of path-coding devices other than verbs, which includes adpositions and case markers. This issue (along with other issues described in the next two paragraphs) has led Matsumoto (2017, 2018) to offer a modified classification of languages into those adopting "head path coding" vs. "head-external path coding", which I follow in this chapter. In head path coding, the path is described in the main verb; in head-external path coding, the path is expressed in other elements, outside the main verb.

Another potential problem in Talmy's framework is his special attention to sentences representing a "macro-event" with both path and a "co-event". His typology focuses on event integration, in which a framing event (a main event, i.e., motion along a path) and a co-event (a subordinate event; e.g., manner of motion and means of causation) are integrated into a single macro-event (a complex motion event), expressed in a single clause. Confining attention in this way may cause a significant proportion of sentences describing a motion event to fall outside the scope of discussion. Indeed, Matsumoto and Kawachi (2020) call attention to many languages that do not usually mention the manner of walking: they often use sentences headed by a path verb or a deictic verb without explicit specification of manner, which should not be counted as verb-framed, given that they do not represent a macro-event. This chapter covers a wider range of data than in a strictly Talmyan framework, including sentences describing a non-macro-event, with the distinction between head vs. head-external path coding applied to non-macro-event descriptions. The central interest lies in whether path is encoded in the head or outside of it in all motion descriptions, rather than which element frames the macro-event described.

The Talmyan notion of path has also been questioned. According to Talmy (2000: 53–57), several kinds of components are relevant to path: the main components are vector, conformation, and deixis. The vector comprises different types of departure, traversal, and arrival (e.g., FRM, TO, VIA, and ALNG);[1] the conformation refers to a spatial relationship between a "fundamental Ground schema", a spatial point or extent which serves as a source, a goal, or a route between them, and a ground object (e.g., IN and ON). One question raised as to Talmy's path components concerns deixis, which is a composition of a vector and a special ground, typically the speaker (e.g., 'toward the speaker') (Matsumoto and Kawachi 2020). In fact, deixis in this sense is incompatible with Talmy's conception of path, because his path is a schema representing the spatial relationship between a figure and a ground: a path

1 Following the convention observed throughout this volume, I present semantic components of motion event descriptions, such as TO, IN, or WALK, in small capitals.

should not incorporate the ground into it (Matsumoto and Kawachi 2020). Moreover, deictic expressions have been shown to display characteristics distinct from other Talmyan components of path in various domains: their lexicalization into verbs (Verkerk 2014), the existence of special morphosyntactic slots (Matsumoto 2017; Matsuse 2020), and the frequencies of deixis specification in discourse (Koga 2017). These findings suggest the special status of deixis among Talmy's path components in motion event descriptions. This chapter thus distinguishes deixis from path notions such as vector and conformation, and hereafter the term "path" will refer to the latter two components unless otherwise noted. "Path in the narrow sense" is also reserved for vector and conformation, excluding deixis.

As stated above, previous studies have classified Basque as a verb-framed language and claimed that it expresses the Talmyan path in the main verb (Ibarretxe-Antuñano 2004a, 2004b, 2015). However, much of the research to date has failed to address the aforementioned problems in Talmy's framework. Specifically, given the distinction between path in the narrow sense and deixis, there is still uncertainty about whether Basque is a head path-coding language, with path narrowly defined.

Previous studies of Basque motion event descriptions also suffer from dealing with a limited range of motion event types. It has been revealed that self-motion descriptions differ from caused-motion descriptions in path-coding patterns in some languages (Choi and Bowerman 1991; Hickmann and Hendriks 2006; Morita and Ishibashi 2017). Also found are variations in the descriptions of subtypes of caused-motion events. In Japanese, for instance, "controlled" caused-motion events (e.g., putting a book in a bag) are described by causative path verbs most of the time, while these verbs are not used very often to express "ballistic" caused-motion events (e.g., throwing a ball into a box) (Matsumoto 2017). Although Ibarretxe-Antuñano (2012) claims that "putting and taking" expressions in Basque corroborate the verb-framed nature of the language, examining a broader range of caused-motion expressions may reveal interesting patterns of intra-linguistic variations.

This chapter aims to develop a better understanding of the language's alleged "verb-framedness". In particular, the following two issues will be addressed. The first question is how path (in the narrow sense) is encoded in self-motion descriptions in Basque. Is there any difference between path and deixis concerning their coding positions? How do they correlate to each other concerning the way they are expressed? The second question is how path (in the narrow sense) is encoded in the descriptions of various types of caused-motion events in Basque. Are caused-motion events different from self-motion events in coding patterns? Do different types of caused-motion events have the path encoded in different positions?

Data for this study were collected using a video-based speech elicitation experiment conducted in France, which is part of the NINJAL project on Motion Event

Descriptions Across Languages (MEDAL). All the participants were speakers of the Navarro-Lapurdian dialect of Basque. Previous studies on motion event descriptions in Basque, such as Ibarretxe-Antuñano (2004a, 2004b, 2015), employ data from different major dialectal areas, including Gipuzkoa, Bizkaia, and Lower Navarre, which may or may not differ in the pattern of motion event descriptions. I will use the term "NL Basque" when I specifically refer to the dialect experimentally examined in this chapter.

In the next section, a set of devices for motion event descriptions in Basque will be surveyed in terms of the typology of path-coding positions, with a brief overview of basic facts about the language. Methodological remarks on the experiment conducted are given in Section 3. Section 4 examines patterns of self-motion descriptions point by point, and demonstrates that head path coding in self-motion constructions is conditional upon the omission of deixis, showing that NL Basque is a "head path-coding language without deixis." Moreover, caused-motion descriptions display patterns different from self-motion descriptions, which are discussed in Section 5. These patterns further suggest the limited use of head path coding in this language. The final section contains a summary of findings in connection with the typological classification of NL Basque motion event description.

2 Preliminaries

This section provides a brief overview of various means of describing motion events in the Basque language. I begin with a thumbnail sketch of its general characteristics (Section 2.1) and then describe verbs, adverbs, case markers, postpositions, and other devices that are employed in motion event descriptions (Section 2.2).

2.1 Basic facts about Basque

Basque is spoken in the Basque Country, a historical region located on the border between Spain and France. Virtually all adult speakers today are bilingual, either Basque–Spanish or Basque–French. The data investigated here were provided solely by speakers from Lapurdi and Lower Navarre, two of the three traditional provinces of the French Basque Country, which are home to the Navarro-Lapurdian dialect of Basque[2] (see Zuazo [2019] for Basque dialects and their classification).

2 An anonymous reviewer has kindly reminded me that the Navarro-Lapurdian dialect spoken today in the northeastern part of the Basque Country is possibly influenced by the unified or

The language has a very large inventory of cases, whose markers are suffixed to the last word of noun phrases: Whatever category it is – a noun, an adjective, or a determiner – only the word that comes last inflects for the case. In NL Basque, the case marking system is mostly ergative, with a few exceptional intransitive verbs requiring their subject to be in the ergative case (see Aldai [2009] for dialectal variation in case marking).

Typical finite verbal predicates consist of a participle and a finite auxiliary verb. Verbs have three participles: perfective, imperfective, and future. The perfective participle is conventionally used as a citation form in Basque linguistics, and I follow that practice in this chapter. Only a handful of verbs have finite forms, which can head a finite clause without an auxiliary. Absolutive, ergative, and dative arguments are cross-referenced on the finite verb, and when these core arguments and other peripheral ones are recoverable from the context, they are usually omitted.

The ordering of the main constituents in a clause is quite flexible. Information structure is particularly relevant to the word order in finite clauses: *wh*-phrases and other foci occur immediately to the left of the verbal predicate, and the most normal position for sentential topics is to the left of the combination of the focused elements (if any) and the verbal predicate. Despite the flexibility of the word order, most Basque grammarians concur in considering SV/SOV as the "neutral" or "basic" order (see de Rijk [1969] among others).

2.2 Devices for describing motion events

2.2.1 Path verbs and manner verbs

So-called verb-framed or head path-coding languages encode path in the main verb of a sentence; the main verb, or the head, conflates motion and path and usually excludes other semantic components. Basque has been claimed to be a typical verb-framed language in this respect (Ibarretxe-Antuñano 2004a, 2004b, 2015), which is illustrated in (1a–b): the verbs *irten* 'exit' in (1a) and *hurbildu* 'approach' in (1b) conflate the motion component and path of the motion OUT and TO.NEAR, respectively; they are accompanied by the adverbs *hegaka* 'flyingly' and *korrika* 'runningly', which express the manner of the motion outside the head.

standard Basque or *Batua*, at least for the youngest people. According to the reviewer, some sociolinguists consider a kind of Northeastern Standard to be used in these regions, which mixes elements of earlier dialects with lexical and grammatical elements of *Batua*.

(1) a. *eta erlauntza-tik erle guzti-ak* ***irten*** *ziren* ***hegaka***.
and beehive-ABL bee all-the.PL exit.PFV PST flyingly
'And all the bees flew out from the beehive.' (Ibarretxe-Antuñano 2015: 311)

b. *Mantal gris-ez jantz-i-ta-ko haur batzuk* ***korrika*** ***hurbil-tzen*** *zaizkie.*
uniform grey-INST dress-PFV-RES-ADN child some runningly approach-IPFV PRS.DAT:3PL
'Some children in grey uniforms ran towards them.' (ibid., 311)

This chapter will show that the whole picture is more complex, considering the distinction I have made above between path (in the narrow sense) and deixis.

One of the phenomena typically associated with the contrast between verb-framed and satellite-framed languages is the type and token frequencies of motion verbs used in a language (see Wienold and Schwarze [2002]; Slobin [2004]; Verkerk [2013, 2014] for the lexical inventory of motion verbs; for the frequencies of manner specification in discourse, see Slobin [1996, 2006]). In terms of type frequencies, verbs describing path in Basque narratives are much larger in number than any other categories of motion verbs. Ibarretxe-Antuñano (2015), examining narrative data consisting of fifteen frog stories and four novels, reports that the percentage of path verbs,[3] 62% of the total number of verb types in the narratives (54 out of 87), is far higher than that of manner verbs (17%) and other minor categories. In addition, path verbs are the most widely used motion verbs in Basque narratives. Ibarretxe-Antuñano lists twelve verbs with fifteen or more tokens, which consist of seven path verbs, three manner + path verbs (e.g., *erori* 'fall'), one manner verb, and *joan* 'go'.[4]

Causal–noncausal verb pairs in Basque are generally labile, i.e., each of them has the same form in most instances, especially in the semantic domains of emotion, change-of-state, and motion (de Rijk [2008: 274–278]; see Haspelmath [1993] for formal coding types of causal–noncausal verb pairs). Although some verbs of motion fail to alternate, such as the deictic verbs that we will see in Section 2.2.2, path verbs are mostly alternating with very few exceptions. Examples are *sartu*

3 As it happens, she includes three types of deictic verbs in her path verb category: *erakarri* 'cause to bring', *eraman* 'carry', and *etorri* 'come'. Since most of her path verbs encode path in the narrow sense, in terms of both type frequency and token frequency, the inclusion of these deictic verbs makes no difference in terms of the characterization of the path verb inventory in Basque.

4 These verbs with high token frequencies do not include deictic verbs (except for *joan* 'go'; see Section 2.2.2 for detailed discussion). The path verbs listed are: *sartu* (intr.) 'enter', *atera* 'exit', *alde egin* 'leave', *igo* 'go up', *irten* 'exit', *pasatu* 'pass', and *sartu* (tr.) 'put inside'.

'enter, put in'; *atera* 'exit, take out'; *hurbildu* 'approach, put near'; and *urrundu* 'go away, put away'.

The manner verb inventory of Basque is rather small, and manner verbs are very rarely used in Basque narratives. Ibarretxe-Antuñano (2015) shows that manner verbs comprise 17% of the total number of verb types in the narratives she studied (15 out of 87) and that there is only one manner verb with fifteen or more tokens (*salto egin* 'jump', used 26 times).

Some of the path and manner "verbs" that Ibarretxe-Antuñano (2015) catalogs are comprised of a light verb and a non-verbal element that encodes path or manner. For instance, the most frequent manner verb in her study, *salto egin* 'jump', consists of the action noun *salto* 'jump' and the light verb *egin* 'do'. Another example is *oin puntetan ibili* 'tiptoe', whose components are the postpositional phrase *oin puntetan* [foot tip-PL.LOC] 'on tiptoe' and the verb *ibili* 'walk/move'.[5] She characterizes these expressions as "compound verbs", implying their wordhood, but several syntactic tests show that many of them are phrasal in nature (see Oyharçabal [2006] and de Rijk [2008: 304–306] for the syntactic diagnostics, including separability and modifiability). In the following analysis, such phrasal constructions are deemed to be headed by the light verb, with path or manner encoded outside the main verb. But note that counting out the alleged compound verbs from Ibarretxe-Antuñano's (2015) list still leaves the overall situation largely intact: among the 71 verbs that are securely categorized as non-phrasal, 46 are path verbs (65%) and 9 are manner verbs (13%).

2.2.2 Deictic verbs

Deictic verbs in Basque distinguish TWRD.S (venitive) and NOT.TWRD.S (andative), the former of which is defined as TWRD + the deictic center (most typically the speaker).[6]

5 As a reviewer remarked, resorting to structures associating a light verb and another element is a more general phenomenon in Basque, which I will discuss in Section 4.7. The reviewer also noted that despite the phrasal nature of these constructions, the relation between the light verb and the adverbial or nominal element seems to be tighter than that between a verb and a present participle clause in other languages. The reviewer kindly referred me to Aske (1989) for a similar claim about Spanish gerunds in motion descriptions.

6 Trask (1997: 294) even states that the speaker is *always* the deictic center for these deictic motion verbs. According to him, "where an English-speaker calling out to a companion says *I'm coming*, a Basque says *Ba noa*, literally 'I'm going'" (*noa* is the first-person singular present of *joan* 'go'). According to a reviewer, this is mainly true of the Western varieties of the Basque language and, very probably, follows from Spanish where, in the same situations, a speaker is expected to answer *voy* 'I go' and not *vengo* 'I come'. However, an NL Basque speaker in such a situation normally says

The most widespread venitive verb is *etorri* 'come', which is found in varieties all over the country (Trask 1997: 294). NL Basque also has a special equivalent of its imperfective participle: as an alternative to regular *etortzen*, the speakers of the dialect usually use *heldu*, which is otherwise the perfective participle of the verb meaning 'arrive'. In addition, some of the varieties have another synonymous verb *jin*. It is not uncommon for one speaker to employ all three different forms for 'come'.

The most common andative self-motion verb is *joan* 'go' (Trask 1997: 293). Although Ibarretxe-Antuñano (2015) considers it to be non-deictic and "neutral", i.e., encoding only the motion part, I regard it as a deictic verb, given the opposition between it and the venitive verbs: *joan* cannot describe a motion toward the speaker, suggesting that its meaning incorporates a deictic component negatively characterized as TWRD + a ground other than the speaker.[7]

There are two deictic caused-motion verbs: the venitive verb *ekarri* 'bring'[8] and the andative verb *eraman* 'take'. As the translations suggest, the caused motion that they express has to be a "co-motional" event, in which the causer moves together with the moving object (see Matsumoto, this volume, for subtypes of caused motion).

Heldu naiz 'I'm coming'. Note that the most natural French equivalent of English *I'm coming* is *J'arrive*, literally 'I arrive', and that *heldu* is also the perfective participle of the verb meaning 'arrive'.

7 A reviewer raised the following two potential criticisms of analyzing *joan* as a deictic verb. "First, if spatial deixis in the motion domain is viewed as the existence of a perspective point at the ground entity (source or goal), from which the motion eventuality is contemplated, it is rather questionable to assume that the andative negatively defined (as an absence of perspective point at the final ground) is truly deictic. Second, even assuming that it is deictic, the negative meaning thus assigned to *joan* is likely to derive from a pragmatic rule (related to *etorri*) rather than to a direct semantic encoding by *joan*." As for the first point of the reviewer, I presuppose the notion of deixis as how the motion is directed relative to the space where the speaker is located, introduced by Matsumoto (this volume). Thus defined, the absence of a perspective point at the final ground is not a problem here in terms of the deictic status of the alleged andative verbs. The second concern, however, is difficult to resist without extensive empirical studies and theoretical considerations, so I would like to defer the substantial discussion on this issue to another article.

In this connection, the reviewer also noted that "the basic meaning of *joan* is atelic (e.g., *Oihanean barna/barrena joan da goiz guzian* 'He/she moved through the forest all the morning'), in contrast to *etorri* and *jin* which are telic (**Oihanean barna/barrena etorri da goiz guzian* 'He/she came through the forest all the morning')." The reviewer further proposed that "*joan* is a general atelic verb indicating the mere fact of motion as there exists in other languages" and that "[c]oncerning *etorri* and *jin*, [. . .] it is very likely that they encode both deixis and path (locative change with respect to a final ground)."

8 A reviewer proposed that *ekarri* (like *etorri*) encodes a final locative change and therefore conveys deixis *and* path. Sorting out path and other semantic components that one verb seems to exhibit is a real theoretical problem concerning both typology and general semantics, which I would like to discuss in another article. For now, I assume that the alleged deictic verbs are distinct from "pure" path verbs, even if the former show semantic restrictions on path.

2.2.3 Locational cases and other path expressions outside the main verb

Basque provides numerous linguistic devices for encoding vectors outside the head of a clause. There are five locational cases in Standard Basque – locative (or inessive) *-an* 'at'; allative *-ra* 'to'; ablative *-tik* 'from, via'; directional *-rantz* 'toward'; and terminative *-raino* 'up to' (see Ibarretxe-Antuñano [2004c] for a detailed presentation of their semantics) – as well as locational postpositions that are independent words, such as *buruz* 'toward' and *gaindi* 'through, across'. Different postpositions take complements in different cases. NL Basque has the regional variant *-rat* of standard allative *-ra*; it also commonly uses the postposition *buruz* 'toward' in place of standard directional *-rantz*.

Locative *-an* needs special attention. Its normal function is to mark the location where something exists or happens, but importantly, it also indicates the goal of motion when it co-occurs with the verb *sartu* 'enter/put in' (Ibarretxe-Antuñano 2004c). In its normal use, the case marker can be used to express various configurations with the help of location nouns, whose function is arguably to specify the conformation of the described configuration (see below). When it is employed by itself, without the further specification of conformation by location nouns, the case can still express two conformation-specific configurations, i.e., containment (IN) and support (ON), as well as those locative relationships that involve social routines (Aurnague 1998, 2004: Ch. 5). When the case marker is attached to a location noun, I postulate that the case does not specify conformation semantically and that the function is served by the location noun. In the absence of a location noun, I assume that the case has a conformation-specific value like IN and ON (see Aurnague [2004: 136–141] for a discussion of semantic values of the case). In the present study, for the sake of comparison with other languages in the project, I consider locative *-an* with the verb *sartu* to encode the path TO.IN when it is used without a location noun such as *barne* 'inside'.[9] Thus, *etxe-an sartu* [house-LOC enter] and *etxe barne-an sartu* [house inside-LOC enter], both meaning 'enter the house', are regarded as examples of double coding: in the former, the path TO.IN is encoded once by the verb and once by the locative *-an*; in the latter, the encoders are the verb, and the location noun *barne*, whose presence makes the case's value unspecific in terms of conformation.

9 Languages sometimes have a locative adposition or a case marker serving as a goal marker with certain motion verbs (e.g., French, Italian, Kathmandu Newar, and Khorchin Mongolian). In our project, such a form is generally treated as encoding path. A reviewer pointed out the incompatibility of this analysis with the notion of path conceived as a dynamic change. The reviewer proposes that a better way to justify the analysis is "to simply indicate that it is an exceptional phenomenon within Basque motion verbs and that inessive [or locative] case alternates with allative in the same position."

The cases and postpositions, which express vectors, are often elaborated in combination with location nouns that indicate conformations. Some regularly used location nouns in NL Basque are: *aitzin* 'front', *gibel* 'back', *gain* 'top', *azpi* 'bottom', *barne* 'inside', *kanpo* 'outside', *alde* 'side', *inguru* 'proximity', *arte* 'interval', *erdi* 'middle', and *bazter* 'edge'. When a location noun is drawn upon to describe path, the ground can be expressed by a genitive NP, which complements the location noun. If the ground NP is inanimate and head-final with a noun as its final element, a type of syntactic compounding is possible: the head noun of the ground NP is compounded with the location noun. The ground that is clear from the context need not be overtly expressed (see de Rijk [1990] and de Rijk [2008: 69–81] for more thorough descriptions of their morphosyntax; see also Aurnague [1996a, 1996b], Ibarretxe-Antuñano [2010] for the semantics; for a recent overview, see Jenderaschek [2020]). All in all, case-marked location nouns in Basque correspond to various spatial prepositions in English when used with the ground NP, and to adverbs or particles, when used by themselves.

Some of those devices for path are exemplified in (2): in (2a), the location noun *barne* 'inside' is compounded with the ground noun *etxe* 'house' and takes the allative case *-ra*, which makes the equivalent of English *into the house*; in (2b), the postposition *buruz* 'toward' takes the NP in allative *bizikleta-rat* [bike-ALL].

(2) a. *Ne-re adiskide-a saltoka sar-tzen da **etxe barne-ra**.*
1SG-GEN friend-the jumpingly enter-IPFV PRS house inside-ALL
'My friend jumps into the house.' (#02, /Skip-To.in-Orthog/)[10]

b. *Adiskide-a lasterka **bizikleta-rat buruz** joan da.*
friend-the runningly bike-ALL toward go.PFV PRS
'My friend runs toward the bike.' (#06, /Skip-To-AwyFrmS/)

The word *goiti* 'up' can be used as either a postposition or adverb (i.e., with or without a ground NP). In this chapter, I look upon the two types of uses as the same lexeme. Historically, it comprises the location noun *goi* 'top' and the suffix *-ti* 'by way of, via' (Michelena 2011: 194; Trask 1997: 205), which partly explains why *goiti* has both postpositional and adverbial uses, since location nouns, in general, have the two types of options. The sentences in (3) illustrate this: in (3a), *goiti* is complemented by the ground NP *eskaleretan* 'steps.LOC', while in (3b), it occurs by itself and in a sister position of the main verb (i.e., it is a genuine satellite).

10 Henceforth, examples cited from the experimental data will be presented with a participant ID (e.g., "#02") and the information about the scene described (e.g., /Skip-To.in-Orthog/). See Section 3 for abbreviations.

(3) a. *Lagun-a igai-ten da* ***eskaler-etan*** ***goiti*** *zalu-zalu-a.*
friend-the ascend-IPFV PRS step-the.PL.LOC up fast-fast-ADVLZ
'My friend climbs up the steps in a hurry.' (#08, /Run-Up-AwyFrmS/)

b. *Eskaler-en zola-tik ba-d-oa* ***goiti*** *jauzika.*
step-the.PL.GEN bottom-ABL AFF-PRS-go up jumpingly
'He jumps up from the bottom of the steps.' (#08, /Skip-Up-AwyFrmS/)

2.2.4 Manner adverbs and ideophones

The most typical way to express manner is to use adverbial expressions. The descriptions from this study include:

(a) adverbs with the adverbial suffix *-ka*, which takes nouns that denote activities and derives manner adverbs with the meaning 'engaging in that activity' (de Rijk 2008: 912ff.), such as *lasterka* 'runningly', *jauzika* 'jumpingly', *jauzteka* 'skippingly', *xingilika* 'skippingly', and *zingili-zangoka* 'skippingly'.
(b) noun phrases in the instrumental, locative, or comitative case, such as *oin-ez* [foot-INST] 'on foot', *lasterr-ez* [run-INST] 'runningly', *urrats-ean* [step-LOC] 'on foot', *urrats ttipi batzu-ekin* [step small some-COM] 'with small steps'.

See Ibarretxe-Antuñano (2015) for a more comprehensive exposition.

One important characteristic of manner expressions in Basque is the use of ideophones (Ibarretxe-Antuñano 2006a, 2006b, 2015). The language is so rich in ideophones that Ibarretxe-Antuñano (2006b) has collected more than 800 types of them that lexicalize some of the semantic components of motion. Even though Basque has a large inventory of manner ideophones, none of these ideophones appears frequently in narratives (Ibarretxe-Antuñano 2015).[11]

3 Method

Data were collected through a video-based speech elicitation experiment (Experiment A in the MEDAL project; see Matsumoto, this volume), conducted in Bayonne and Saint-Jean-Pied-de-Port, France, in March 2018. These are the capitals of the

11 The ideophone tokens in the experiment were one occurrence of *ttaka-ttaka* 'in small and short steps', six occurrences of *xingilika* 'skippingly', and two occurrences of *zingili-zangoka* 'skippingly'. The use was less frequent than in Newar (Matsuse, this volume).

traditional Basque provinces of Lapurdi and Lower Navarre, respectively. The two provinces are home to the Navarro-Lapurdian dialect, or NL Basque, which is further subdivided into Eastern and Western subdialects (Zuazo 2019: 18, 20). Among the 12 speakers who participated, 11 come from the Eastern region (ten from around Saint-Jean-Pied-de-Port and one from Saint-Jean-d'Irube, Lapurdi) and one from the Western region (Ainhoa, Lapurdi). The participants consisted of eight women and four men, ranging in age from 30 to 84. The NL Basque version of the experiment was used and the experimenter spoke Basque and French during the experiment.

Experiment A contained 30 video clips portraying self-motion events. Among them, 27 clips constituted the core set, which was designed to explore the following semantic components:

(4) Semantic components of self-motion descriptions examined in Experiment A
   a. Manner (M): WALK, RUN, SKIP
   b. Path (P): TO, TO.IN, UP
   c. Deixis (D): TWRD.S 'toward the speaker', AWY.FRM.S 'away from the speaker', ORTHOG 'cutting orthogonally across in front of the speaker'

Each motion event presented in the core clips was intended to elicit a distinct combination of the manner, path, and deixis types shown in (4). For instance, in the clip for the combination of WALK, TO.IN, and TWRD.S, a woman walks into a gazebo up to the camera. When what a video clip depicts is at issue, following the practice adopted in this whole volume, I will characterize the scene as the "/Walk-To.in-TwrdS/" scene and so on, putting the description between slashes.

The three types of path were depicted as follows: in /To/ scenes, a person moved toward either a bicycle or the camera (which participants were told to identify with themselves; see below), and stopped there; in /To.in/ scenes, a person moved into a gazebo; in /Up/ scenes, a person moved up steps.

The three types of deixis were portrayed by changing the relative position of the camera to the path depicted. Participants were told to identify the camera with themselves. In /TwrdS/ scenes, a person moved toward the camera; in /AwyFrmS/ scenes, a person left the camera and moved away from it; and in /Orthog/ scenes, a person crossed right in front of the camera, which tracked the person's motion.

Note that crossing these three parameters (with three modalities each) leads to 27 (3 × 3 × 3) video clips. Out of the total of 30 video clips, this leaves three clips remaining, which were designed to investigate self-motion events with an atelic path and one of the three kinds of deixis. These portrayed a woman walking along a path, without filming her arrival at a certain goal. In the results reported below, only the descriptions of the 27 core clips will be discussed.

There were also 18 core clips designed to look into caused-motion descriptions involving four different kinds of means of causation, three types of path, and three types of deixis:

(5) Semantic components of caused-motion descriptions examined in Experiment A
   a. Means of causation: MOVE.BY.HAND, KICK, CARRY, CALL
   b. Path: TO, TO.IN, UP
   c. Deixis: TWRD.S, AWY.FRM.S, ORTHOG

Twelve of them were intended to portray a /To.in/ scene with different kinds of means and deixis. In /MoveByHand-To.in/ scenes, a woman sitting in an armchair took a book and moved it into a bag held by a person sitting in front of her. In /Kick-To.in/ scenes, a man kicked a ball and it rolled into a gazebo. In /Carry-To.in/ scenes, a woman took a chair and walked into a gazebo holding the chair in her arms. In /Call-To.in/ scenes, a woman standing in a gazebo called another woman named Maria, who was outside the gazebo, and the latter walked in. Different deixis types are depicted in the same way as in self-motion clips. The other six clips depict /Kick-To/ scenes and /Kick-Up/ scenes with three different deictic directions, which are not discussed in this chapter.

The experiment also involved four other clips, which will not be discussed in the present study. Among them, three were designed to investigate expressions of gaze direction and the other one depicted a scene involving a complex trajectory.

In total, the participants were shown 52 video clips and asked to describe what they saw. Responses were recorded and transcribed by the author. They were then analyzed in terms of their clause structure, and each element in the sentence was tagged with respect to the semantic components it expressed as well as its grammatical categories and function in the clause. For more details on the experiment, see Matsumoto (this volume).

In the next sections, the results of the experiment are reported and discussed, beginning with those of self-motion descriptions and then proceeding to those of caused motion.

4 Description of self-motion

4.1 Overall patterns: The essential role of deixis

Self-motion description data from the 27 core clips reveal the essential role of deixis in NL Basque. The average frequency of deixis coding per response in NL Basque

was 0.78, which is slightly larger than other languages, given that the average frequency of deixis coding per response in the 21 languages examined in the project was 0.73. The consideration of another factor, however, makes deixis in NL Basque more conspicuous: it is the highest in deixis frequency ranking among the languages that have competition for deixis in the head position. In fact, all languages that outrank NL Basque in deixis frequency in the project are no-competition languages, which have a special slot for deixis (i.e., deixis almost always occupies the main verb position or a special slot within a verbal complex): Kupsapiiny, Kathmandu Newar, Japanese, Thai, Sidaama, Khorchin Mongolian, and German. NL Basque is a competition language, i.e., it has no slot devoted to deixis, which puts deixis potentially in competition with some other notion (path in the case of NL Basque) for the main verb position. NL Basque ranks higher than all other competition languages with respect to frequency of deixis. It outranks Mandarin Chinese as well, which does not have competition for deixis.

Moreover, deictic verbs were frequently employed in self-motion descriptions. In the data collected from responses to the 27 core clips, 15 different self-motion verbs were identified, which were then classified based on the semantic component conflated with motion.[12] Table 1 summarizes the verbs along with their frequencies, i.e., the number of tokens per verb type. The most frequent verb by far was *joan* 'go', aligning with Ibarretxe-Antuñano's (2015) observations of oral and written narratives, followed by *heldu* 'come'. Regional variants of each verb, used at least once in the experiment, are shown in parentheses.

Table 1: Self-motion verbs used in the responses.

Semantic classification	Verbs and meanings	Frequency	Semantic classification	Verbs and meanings	Frequency
Path		Total 137	Deixis		Total 179
	sartu 'enter'	43		*joan* (*gaki*) 'go'	90
	igan (*igo*) 'ascend'	41		*heldu* 'come'	65
	hurbildu 'approach'	25		*jin* 'come'	21
	iragan (*irain*) 'ascend'	15		*etorri* 'come'	3

12 It is worth noting that for the three atelic /Walk/ scenes, manner verbs are more frequently used than for the 27 core clips. The verbs found in the responses with their frequency in parentheses are: the path verbs *hurbildu* 'approach' (4), *pasatu* 'pass by, go via' (4), *urrundu* 'move away' (2), and *itzuli* 'return' (1); the deictic verbs *joan* 'go' (12), *heldu* 'come' (5), and *jin* 'come' (2); and the manner verbs *ibili* (*ibilki*) 'walk' (3) and *kurritu* 'walk' (2) [Total: 35].

Table 1 (continued)

Semantic classification	Verbs and meanings	Frequency	Semantic classification	Verbs and meanings	Frequency
	abiatu 'leave'	5	Manner		Total 2
	pasatu 'pass by, go via'	4		*ibili* 'walk'	2
	aintzinatu 'move forward'	2	Other		Total 1
	urrundu 'move away'	1		*ibili* 'move'[13]	1
	itzuli 'return'	1			

Deixis was also the most frequent semantic component expressed in the main verb. Figure 1 shows how many times each semantic component was encoded in the head position in the responses for the 27 clips. Path and deixis won the head position 36.7% and 50.0% of the time, respectively, whereas manner never occurred as the main verb for the core 27 clips, where telic self-motion events are depicted.[14]

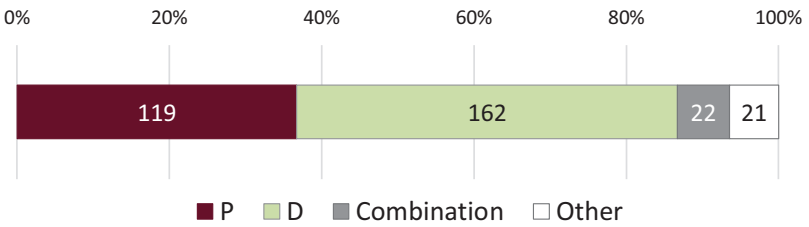

Figure 1: Semantic components coded in the head in self-motion descriptions.[15]

13 Verbs that occurred in the head position and do not encode the major three semantic components include ***izan*** 'be' with the adverbs *abian* 'going/leaving' or *kurri* 'walking'; ***ari*** 'do' with the path adverb/postposition *goiti* 'up' or the manner adverbs *lasterka* 'runningly', *jauzika* 'jumpingly', or *jauzteka* 'skippingly'; ***egin*** 'do' in the complex expression *laster egin* 'run'; and ***ibili*** 'move' with the manner adverb *lasterka* 'runningly'.

14 Even though *ibili* is often glossed as 'walk' in the literature, the status of this verb as a manner verb is somewhat obscure. On the one hand, one may posit for it the more schematic meaning 'move' that abstracts away the manner component, based on the fact that it can be used with manner adverbials like *lasterka* 'runningly', *autoz* 'by car', and *bizikletaz* 'by bicycle' (I owe the last two examples to a reviewer). On the other, the same verb can clearly express a walking manner, say, when it is used in the converb form *ibiliz* by itself. In this study, I treated instances of *ibili* in the former cases (actually one occurrence) as encoding pure motion, and otherwise I considered them to be manner verbs.

15 "Combination" refers to responses with coordinate sentences. "P", "D", and "Other" count the number of each semantic component coded in the head of either a simplex sentence or the main clause of a complex sentence.

Thus, deixis was expressed in the main verb more often than path in the narrow sense. It is not that path was rarely encoded in the head, however. Instead, path was in competition with deixis for the main verb position and won it 36.7% of the time. So the problem is what determines when path is encoded in the head position, and why. The following subsections explore this issue from several different points of view, including the mention of deixis, the types of deixis, the types of path, and manner coding positions, in trying to show that NL Basque encodes path in the head position specifically when deixis is not expressed.

4.2 Sentence types and common responses

As a starting point, I describe the sentence types used and offer some common examples of self-motion descriptions in this study. As evidenced in Figure 2, simplex sentences were used 89.3% of the time in the responses for the 27 self-motion core clips. Complex sentences (sentences with subordinate clauses) are possible but rarely occurred (3.8% of the time). Coordinate sentences were employed in 6.9% of all responses.

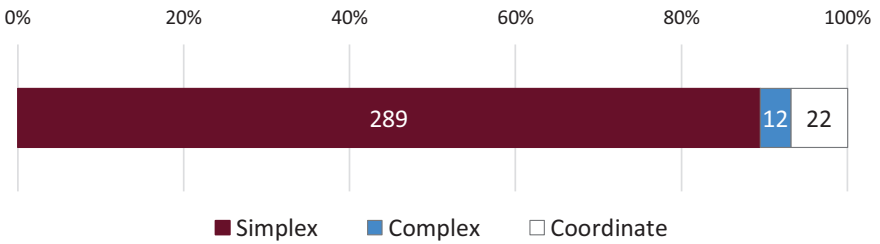

Figure 2: Sentence types used in self-motion descriptions.

Common responses for the self-motion core clips that are simplex sentences are exemplified in (6). While in (6a), path is encoded both in the head (*sartzen* 'enter') and head-externally (*etxolaren barnera* 'to the inside of the shack'), in (6b), path is expressed only head-externally (*barnera* 'to the inside') and the main verb is the deictic verb *joan* (*doa* 'he goes').

(6) a. *Zingili-zangoka sar-tzen da etxola-ren barne-ra.*
skippingly enter-IPFV PRS shack.the-GEN inside-ALL
'He enters the shack skipping.' (#11, /Skip-To.in-AwyFrmS/)

b. *Adiskide-a ba-d-oa jauzteka barne-ra.*
friend-the AFF-PRS-go skippingly inside-ALL
'My friend goes inside skipping.' (#10, /Skip-To.in-AwyFrmS/)

In coordinate sentences, typically, one of the conjunct clauses was headed by a path verb or deictic verb, and the other clause's main verb encoded either path, deixis, or manner. An example is given in (7).

(7) *En-e* *lagun-a* *jauzika* *hurbil-tzen* *da* *eta* *bizikleta-ri*
1SG-GEN friend-the jumpingly approach-IPFV PRS and bike.the-DAT
buruz *d-oa.*
toward PRS-go
'My friend approaches jumping and goes toward the bike.'
(#03, /Skip-To-Orthog/)

Subordinate clauses were often non-finite and headed by a converb, formed with a perfective participle suffixed by *-z*. All of the three semantic components were coded by converbs subordinated to path or deictic main verbs. Observe that deictic converbs were allowed, as exemplified in (8), which is a pattern disfavored in other languages like Japanese but frequent in Swahili (Matsumoto and Kahumburu, this volume).

(8) *Hurbil-du* *zitzau-ta-n* *ne-re* *lagun-a* *kanpo-tik* *jin-ez.*
approach-PFV PST.DAT-1SG-PST 1SG-GEN friend-the outside-ABL come-CNV
'My friend approached me, coming from outside.' (#08, /Run-To.in-TwrdS/)

4.3 Coding positions of path and deixis

Figure 3 shows the overall results regarding the path-coding patterns in self-motion descriptions.[16] Path was expressed in the head 40.7% of the time in total, either in the head only or together with a head-external element encoding path as well (25.6% of all responses). In contrast, path was encoded only head-externally 50.6% of the time. In the last cases, the main verb position was mostly occupied by a deictic verb, as will be discussed in this section.

The path coding position in self-motion descriptions hinges on the explicit mention of deixis. Figure 4 shows the frequencies of head path coding in simplex and complex (i.e., non-coordinate) sentences with or without the encoding of deixis. Path was predominantly expressed by the main verb in the absence of deixis (84.1% of the time), and drastically less so in the presence of deixis (7.6% of the time). NL

16 In Figures 3, 6, and 16, the "Head" category includes the verbs in one of the conjunct clauses of a coordinate sentence.

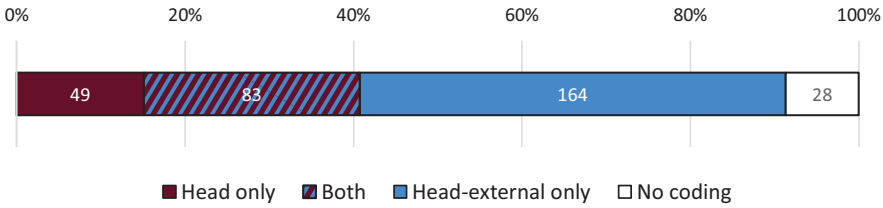

Figure 3: Path-coding patterns in self-motion descriptions (all sentence types).

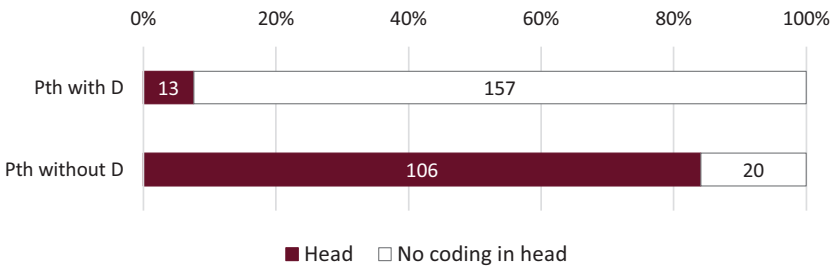

Figure 4: Head path coding in non-coordinate sentences with or without deixis.

Basque can thus be characterized as *head path coding without deixis*, i.e., a language in which deixis specification reduces the chance of head path coding.

To explicitly refer to both path and deixis in a non-coordinate sentence, a choice has to be made between them for the head position, which leads the unselected one to be encoded head-externally. The participants in the experiment had a tendency to choose deixis for the head position and use head-external path expressions. This is illustrated by the following examples: (9) is a typical response, where deixis is expressed by the main verb, while path is expressed in a head-external element. Example (10) illustrates a small number of head path-coding responses with a head-external deictic expression (the allative-marked first-person pronoun).

(9) *En-e* *lagun-a* *barne-rat* *d-oa* *lasterka.*
1SG-GEN friend-the inside-ALL PRS-go runningly
'My friend went running to the inside.' 0(#12, /Run-To.in-AwyFrmS/)

(10) *En-eganat* *hurbil-du* *da* *oin-ez.*
1SG-ALL approach-PFV PRS foot-INST
'She approached me on foot.' (#04, /Walk-To-TwrdS/)

The choice of a deictic or path verb for the main verb partially depends on the types of deixis and path represented, as will be seen in Sections 4.4 and 4.5.

4.4 Path and deixis types

Coding positions of path are not much affected by the deixis type of the described motion event. Figure 5 shows the component coded in the main verb. ("Combination" refers to the use of coordinate sentences). A Chi-square test of independence was performed to examine the relation between the coding of path in the head position and the deixis type of the scene. The results show that the proportion of head path coding did not differ by deixis type.[17]

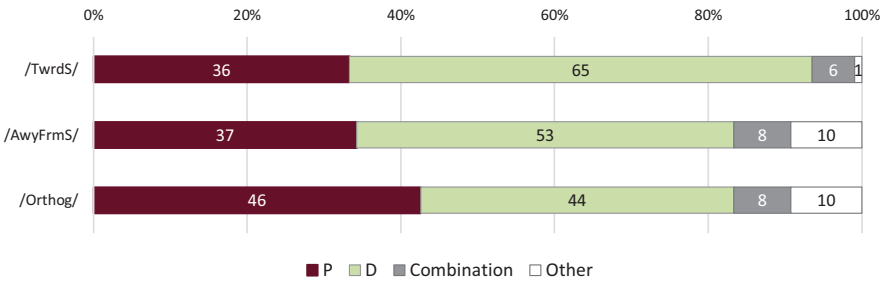

Figure 5: Semantic components coded in the head for scenes with different deixis types.

Regarding the coding positions of deixis, there is a significant relationship between deixis types only when comparing /TwrdS/ and /Orthog/. Deixis is more likely to be expressed by the main verb in descriptions for /TwrdS/ scenes than /Orthog/ scenes, χ^2 (1, N = 216) = 8.96, p = .0028. There is no difference between /TwrdS/ and /AwyFrmS/ or /AwyFrmS/ and /Orthog/.[18] The coding of deixis in the head is more or less stable in NL Basque, unlike Khorchin Mongolian (Matsumoto and Badema, this volume), Turkish (Suzuki, this volume), and Italian (data from Yoshinari's experiment, which is discussed in her article in this volume), which exhibit marked differences in the head coding of deixis between /TwrdS/ scenes on the one hand and /AwyFrmS/ and /Orthog/ on the other.

The deictic direction TWRD.S was often mentioned twice in one sentence, once in the head and once head-externally, which is shown in example (11). Indeed, 46.3% of the descriptions of /TwrdS/ scenes involved multiple deixis coding.

17 Between /TwrdS/ and /AwyFrmS/: χ^2 (1, N = 216) = 0.02, p = .89; between /AwyFrmS/ and /Orthog/: χ^2 (1, N = 216) = 1.58, p = .21; between /Orthog/ and /TwrdS/: χ^2 (1, N = 216) = 1.97, p = .16.

18 Between /TwrdS/ and /AwyFrmS/: χ^2 (1, N = 216) = 2.69, p = .10; between /AwyFrmS/ and /Orthog/: χ^2 (1, N = 216) = 1.88, p = .17.

(11) a. *Lasterka* *eskaler-a-ri* *goiti* *en-egana* *ji-ten* *da.*
runningly step-the-DAT up 1SG-ALL come-IPFV PRS
'He comes to me running up the steps.' (#11, /Run-Up-TwrdS/)

4.5 Path and its types

The path-coding position varies with the path type of the described motion. Figure 6 compares the coding patterns of path in different path scenes. Head path coding (i.e., "head only" and "both") was more frequent for TO.IN (39.8%) and UP (50.9%) than in TO (13.0%). In contrast, head-external path coding (i.e., "head-external only" and "both") was more frequent for TO (80.6%) than for TO.IN (51.9%) and UP (48.1%).

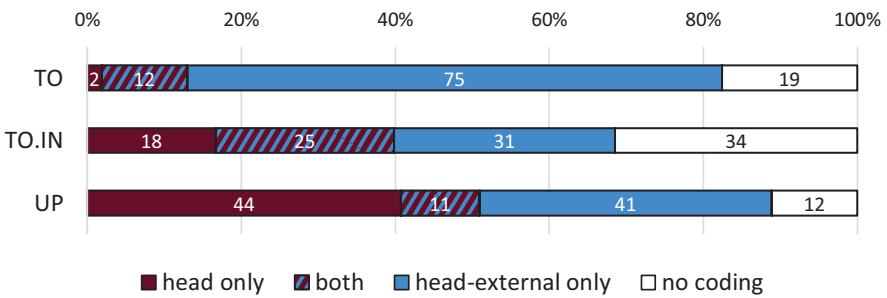

Figure 6: Path-coding patterns of TO, TO.IN and UP tested in three path scenes.

Figure 7 indicates how many times speakers used each option per response on average. It shows that TO was encoded by the head only 0.08 times per response on average, while TO.IN and UP were expressed in the head position 0.37 and 0.47 times, respectively.

Each path type shows a different tendency with respect to the choice of particular head-external expressions. In head-external elements, the common choices were cases and postpositions for TO; the allative and locative-marked location noun *barne* 'inside' for TO.IN; and the postposition/adverb *goiti* 'up' for UP. We will see how each of these path types is expressed below.

4.5.1 TO

The path TO tended to be described by cases (allative, terminative, and directional) and postpositions such as *buruz* 'toward'. Typically, these head-external path expressions accompanied the deictic main verb, as shown in (12a–b).

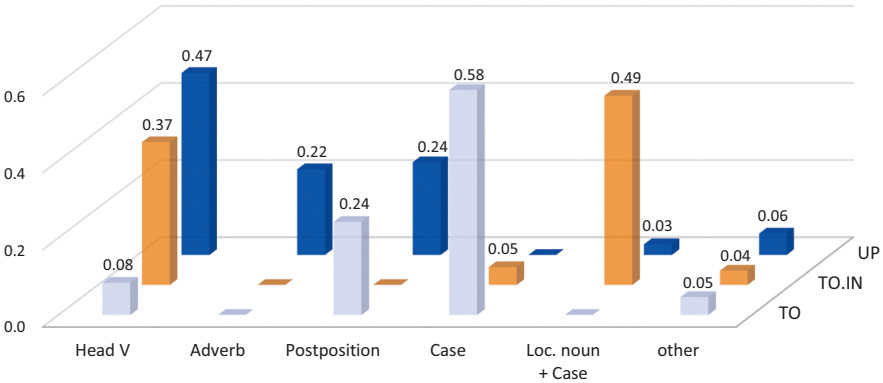

Figure 7: Average per-response frequencies of different coding positions of TO, TO.IN, and UP tested in three path scenes.

(12) a. *Hori lasterka ba-d-oa pirripitta-ren ondo-ra.*
that runningly AFF-PRS-go bike.the-GEN side-ALL
'He goes to the bike running.' (#10, /Run-To-AwyFrmS/)

b. *Lasterka bizikleta-raino joan da.*
runningly bike-TERM go.PFV PRS
'He went to the bike running.' (#06, /Run-To-AwyFrmS/)

A less common pattern found in TO descriptions was the use of sentences headed by a path verb, as exemplified in (13). *Hurbildu* 'approach' was employed as the main verb most of the time in this pattern.

(13) *Joanes lasterka bizikleta-ra hurbil-tzen da.*
Joanes runningly bike-ALL approach-IPFV PRS
'Joanes approaches the bike running.' (#11, /Run-To-Orthog/)

4.5.2 TO.IN

A striking feature of TO.IN in self-motion descriptions is the frequent double coding of the path. The path TO.IN was often encoded more than twice in one response, once in the head and once or more head-externally, 25.9% of the time. Some prime examples are given in (14a, b). In those descriptions with multiple TO.IN encodings, the head position was always occupied by *sartu* 'enter' and either the 'into' sense

of locative *-an* (see 2.2.3) or the allative-marked locational noun *barne* was used to code path head-externally.[19]

(14) a. *Ne-re lagun-a kanpo-an nintz-elarik pabion-**ean***
1SG-GEN friend-the outside-LOC ABS:1SG.PST.be-when pavilion-LOC
***sar**-tu zen.*
enter-PFV PST
'My friend entered the pavilion when I was outside.' (#08, /Walk-To.in-Orthog/)

b. *Lagun-a lasterka **sar**-tzen da etxe **barne-ra**.*
friend-the runningly enter-IPFV PRS house inside-ALL
'My friend entered the house running.' (#02, /Run-To.in-Orthog/)

Single coding of TO.IN resulted mainly from the use of deictic head verbs with head-external path expressions, as in (15), rather than the use of the path verb *sartu* 'enter' without head-external TO.IN expressions.

(15) *En-e adiskide-a heldu da pabion-a-ren **barne-rat.***
1SG-GEN friend-the come.SYN PRS pavilion-the-GEN inside-ALL
'My friend comes into the pavilion.' (#01, /Walk-To.in-Orthog/)

4.5.3 UP

The description of the path UP was not biased toward either head path coding or head-external path coding. Figure 6 above shows that UP was encoded only in the main verb position in 40.7% of all responses and solely head-externally in 38.0% of all responses.

In the main verb position, the path verbs *igan* 'ascend' and *iragan* 'ascend' were used most frequently, as illustrated in (16). A few speakers used the regional variant *igo* 'ascend' instead of *igan*.

(16) a. *Eskeler-ak **iragai**-ten ditu goxoki.*
step-the.PL ascend-IPFV PRS slowly
'She climbs the steps slowly.' (#09, /Walk-Up-Orthog/)

b. *Lagun-a **igai**-ten da eskaler-etan goiti zalu-zalu-a.*
friend-the ascend-IPFV PRS step-the.PL.LOC up fast-fast-ADVLZ
'My friend climbs up the steps in a hurry.' (#08, /Run-Up-AwyFrmS/)

19 Four occurrences of triple coding were due to the expression of paths other than TO.IN.

The postposition/adverb *goiti* was the most frequent head-external expression for UP. A minority of speakers used *gora* 'up' and *goraino* 'up to the top' rather than *goiti*, which tended to be used in clauses headed by a deictic verb, as in (17). Unlike with TO.IN, the use of case-marked locational nouns such as *gain* 'top' and *gainealde* 'top' was uncommon.

(17) *Eskaler-en* *erdi-an* *zen* *eta* ***goiti*** *joan* *da* *lasterka.*
step-the.PL.GEN middle-LOC PST.be and up go.PFV PRS runningly
'He was in the middle of the steps and went up running.'
(#06, /Run-Up-Orthog/)

The path verbs *igan* 'ascend' and *iragan* 'ascend' can be accompanied by the postposition/adverb *goiti* 'up' as shown above in (16b), but such co-occurrence was very rare (two instances). Note also that one participant, whose parents are from Donostia (Gipuzkoa, Spain), employed the combination *igo gora* and *igo goraino* quite frequently, in seven out of nine responses.

4.6 Manner expressions

There were seven verb tokens for manner in the responses for 30 self-motion descriptions (the 27 core clips plus the three atelic scenes), which amounts to only 2.6% of the total number of self-motion verb tokens. It is worth noting that manner adverbs formed by the suffix *-ka* have the potential to be converted into verbs (de Rijk 2008: 151) due to the high productivity of conversion to verbs in this language. Indeed, some of the manner adverbs used in the experiment have well-established verbal counterparts with appropriate meanings, such as *jauzteka* 'skippingly' and *jauztekatu* 'skip'. However, such verbs were not observed in this experiment.

Just like in many other languages, the least salient manner, WALK, was mentioned only occasionally (25.0% of the time), while the other two types of manner, RUN and SKIP, rarely failed to be coded (89.8% and 84.3%, respectively).

In NL Basque, manner was very rarely encoded in the head verb position: in the core clips, head verbs expressed manner only five times out of 225 manner expressions, and all of the verbs headed a subordinate clause (i.e., they were not the global heads). Typically, manner was encoded head-externally by adverbial expressions, including adverbs and postpositional phrases; all three manner types were expressed by adverbials most frequently (WALK 90.3% of the time, RUN 97.0%, and SKIP 92.5%). This tendency is illustrated in numerous examples cited above, such as (14b) and (16b). This is one of the factors that produces the prevalence of deixis in the head position, as will be discussed in Section 4.7. In this connection, it might

also be worth noting that the expression of manner by adverbials perhaps contributes to the preference for simplex sentences mentioned in Section 4.2; Basque's potential to express a macro-event in a simplex sentence can be attributed to the fundamental nature of its manner adverbials.

4.7 Further Discussion: Comparison with other languages

As indicated by the data presented so far, with respect to self-motion description, NL Basque uses head path coding without deixis: speakers tend to encode path in the head position unless they mention deixis; if they do include deictic information in the description, path is expressed head-externally for the most part, with deixis encoded in the main verb. The head of non-coordinate sentences with manner expressions is either path in the narrow sense or deixis, both of which are components of Talmy's path. In terms of Talmy's typology, Basque is classified as a verb-framed language, as has been claimed in the literature (Ibarretxe-Antuñano 2004a, 2004b, 2015).

The contingency of head path coding on deixis is not observed in all languages that have been categorized as verb-framed. In French, for example, the frequency of head path coding does not seem to vary greatly depending on the mention of deixis (data from Morita's experiment, which is discussed in his article in this volume). As demonstrated in Figure 8, path was encoded in the head position pretty frequently with or without deixis specification in simplex sentences (51.5% and 68.1% of the time, respectively).

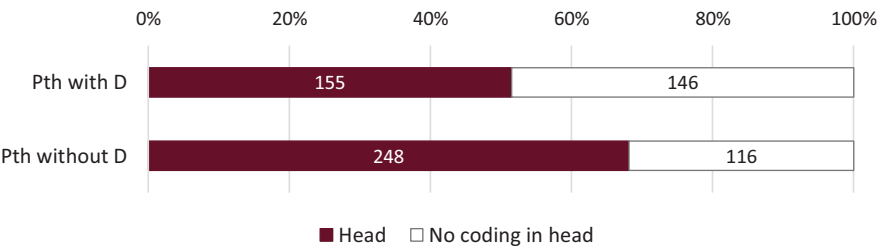

Figure 8: Head path coding in non-coordinate sentences with or without deixis in French.

This intra-typological difference between the two head path-coding languages suggests that head coding of conformation and vector does not necessarily induce the contingency on deixis, increasing the encoding of deixis in the head position. In this respect, I argue against Ibarretxe-Antuñano's (2015) explanation of why the verb *joan* 'go' is by far the highest in frequency in oral and written narratives in

her study (18% of the total number of verb tokens). She briefly tries to account for this, based on the number of motion verb types. According to her, as a verb-framed language, Basque does not have many different verbs of motion, and this forces its speakers to use "neutral" motion verbs such as 'go', which can then be accompanied by gerunds, adpositional phrases, and adverbs, in order to specify details of path and manner. This line of explanation is not very convincing at least for path, however, because Basque does have various morphological strategies to create path verbs, especially the one deriving path verbs from allative-marked nouns, and also because the number of path verb types *is* very large, as discussed by Ibarretxe-Antuñano (2015) herself. In addition, I seriously doubt her assumption that verb-framed languages find it necessary to employ 'go' verbs because of the scarcity of verb types, considering that at least one verb-framed language, i.e., French, has no tendency toward using deictic verbs, including *aller* 'go', as the head.

How can one characterize NL Basque in comparison to other languages that are head path coding without deixis? Here I attempt to do so by using Japanese as a point of reference (based on the data collected by Koga; see Koga, this volume). As evidenced in Figure 9, Japanese always encodes path in the head position in the absence of deixis, and almost always head-externally (very often in "semi-heads") in the presence of deixis.[20] The contrast between path with deixis and path without deixis is very clear, qualifying the language to be a good benchmark. The contrast is somewhat obscured in NL Basque in Figure 4 by a small number of responses with the path verb in the head and head-external deixis expressions in "path with deixis" responses, yet they still consist of less than 10% of the responses.

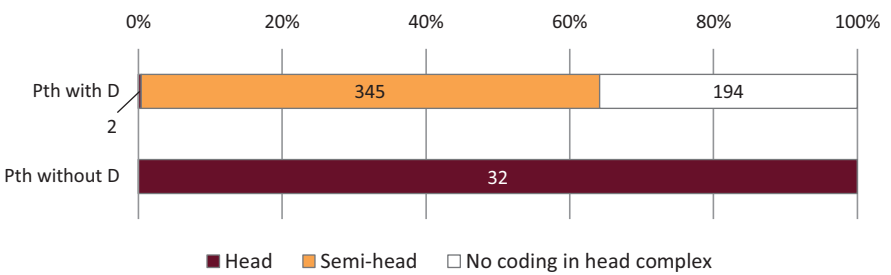

Figure 9: Head path coding in non-coordinate sentences with or without deixis in Japanese.

20 Koga (this volume), following Matsumoto (2017), assumes that a Japanese complex predicate composed of a subject-sharing path and deictic verbs constitutes a *head complex*, in which the deictic verb is the genuine head and the path verb serves as a *semi-head*. A semi-head of these complex predicates selects its own arguments like a genuine head, but does not carry the tense marking. Here, I regard semi-heads as head-external to the extent that they are not genuine heads.

There is another stark contrast between "path with deixis" responses and "path without deixis" responses in Japanese: path is almost always mentioned together with deixis (95% of the responses involving path), i.e., only very rarely is path mentioned without deixis. Thus, head path-coding constructions, used specifically when deixis is not expressed, actually seldom occur in self-motion descriptions in the language. By comparison, path specification without deixis is not uncommon in NL Basque, 39% of the time, making head path coding in self-motion descriptions rather frequent.

NL Basque is thus a language characterized by the following three features. First, it uses a considerable amount of self-motion descriptions both with and without deixis (in contrast to Japanese, which almost always specifies deixis). Second, it encodes path in the head position (at least) when deixis is omitted (like many other "verb-framed" languages). Third, the mention of deixis decreases the chance of head path coding (unlike French, which encodes deixis head-externally most of the time).

This deixis contingency of path coding in NL Basque is statistically significant. A mixed logistic regression model was created,[21] with path coding positions (head or head-external) fit as a function of the availability of a deictic expression with varying intercepts for individual speakers and clips. There was a reliable effect of the deixis contingency of path coding (logit coefficient: –4.663, SE = 0.8010, z = –5.822, p = 5.81e-09).

Comparison to Italian further reveals two more peculiarities about NL Basque. According to the data collected by Yuko Yoshinari (see Yoshinari this volume), Italian has all three characteristics formulated above, concerning simplex sentences: it uses a fair number of self-motion descriptions both with and without deixis (indeed, the simplex sentences without deixis are 52% of the total number of those specifying path); it encodes path in the main verb 54% of the time (with manner) and 98% of the time (without manner) when deixis is omitted; and finally, deixis specification lowers the number of head path-coding responses (13% with manner and 16% without manner), as shown in Figure 10.

A difference lies in the consistency of attention to deixis. Figure 5 in Section 4.3 shows that NL Basque speakers encoded deixis in the head more than 40% of the time in all types of scenes, while Figure 11 below shows that, in Italian, deixis less often prevailed in scenes with the less salient deixis types. This contrast suggests that consistent attention to deixis is not always conventionalized in languages that prefer to express it in the main verb. NL Basque specifies deixis in a relatively consistent manner, whereas Italian pays less attention to less remarkable types of deixis.

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21 I appreciate this statistical analysis carried out by Naonori Nagaya and Shigeki Yoshida. See Nagaya (this volume) for a similar analysis of the manner contingency in Tagalog.

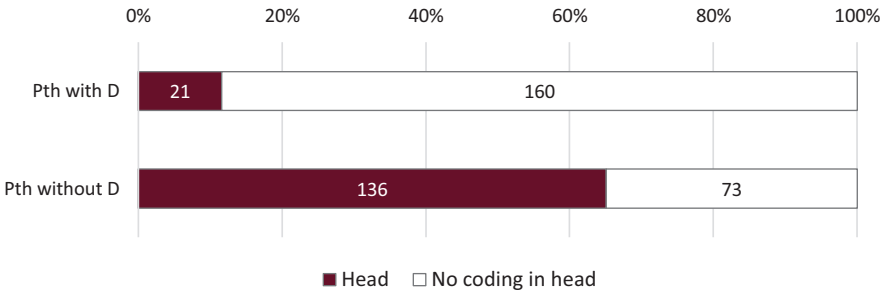

Figure 10: Head path coding in non-coordinate sentences with or without deixis in Italian.

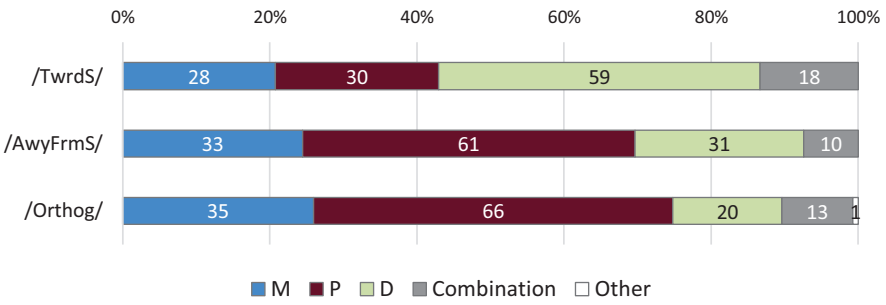

Figure 11: Semantic components coded in the head for different deixis scenes in Italian.

Another peculiarity of NL Basque is the absence of manner in the main verb. Italian expresses manner in the head position 10%–38% of the time according to different types of manner. In contrast, NL Basque never encodes manner in the head in self-motion descriptions, as shown in Figures 12.[22]

Although it is beyond the scope of this chapter to elucidate exactly what causes NL Basque to avoid encoding manner in the head position, some remarks on the Basque lexicon organization should help clarify that this preference of head-external manner expressions might be an instance of a more general phenomenon. The Basque intransitive verb lexicon is predominated by unaccusative verbs (Levin 1983a, 1983b, 1989; Laka 1993; Levin and Rappaport Hovav 1995: 140–141; Etxepare 2003; Oyharçabal 2006; Aldai 2009). To express those verbal notions that are

22 Only once is the verbal phrase *laster egin* 'run' used as the main verb, but I treat the verb *egin* 'do' as the head, as discussed in 2.2.1; hence there is no head coding of manner. Responses for atelic self-motion include a few sentences headed by manner verbs like *ibili* 'walk' and *kurritu* 'walk' (4 out of 36).

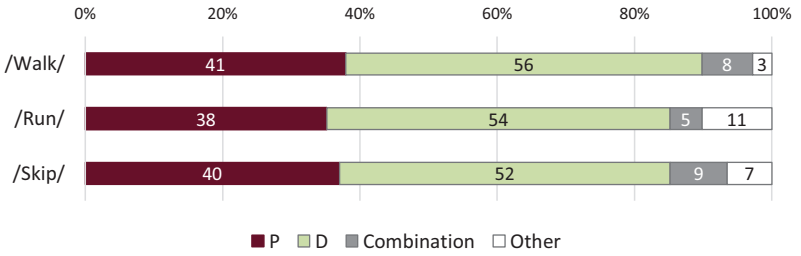

Figure 12a: Semantic components coded in the head for different manner scenes (NL Basque).

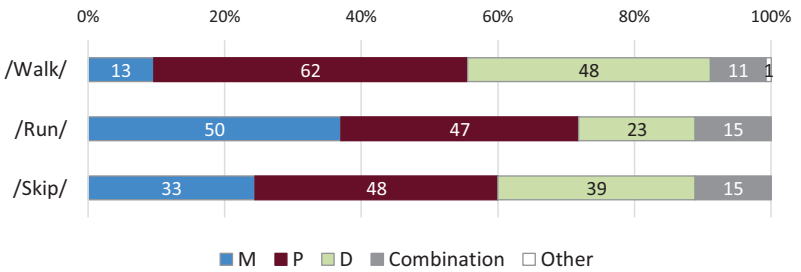

Figure 12b: Semantic components coded in the head for different manner scenes (Italian).

often lexicalized as unergative verbs in other languages, such as 'run', 'shout', and 'work', Basque uses some special constructions headed by light verbs. They can be classified depending on whether the lexical component is encoded by action nominals or adverbials. Action nominal constructions are represented by the N EGIN construction, which comprises the light verb *egin* 'do, make' and its bare noun object, like *laster egin* 'run' (run do), *oihu egin* 'shout' (shout do), or *lan egin* 'work' (work do).

More relevant to this study are action adverbial constructions, which are systematically overlooked in the literature for some reason, composed of a light verb complemented by an adverb or a postpositional phrase. A paradigmatic example is the ADV ARI construction. It is headed by the light verb *ari* 'do, engage' and takes adverbial complements like *lasterka ari* 'run' (runningly do), *oihuka ari* 'shout' (shoutingly do), *lan-ean ari* 'work' (work-LOC do). The unmarked deictic verb *joan* 'go' with manner adverbs, such as *lasterka joan* 'run' (runningly go), could be related to the ADV ARI construction as its variant specialized in expressing manner of motion. This special feature of the Basque intransitive verb lexicon might lead to the nonpreferred status of manner verbs and preference for head-external manner coding.

5 Description of caused motion

Having demonstrated the restricted use of head path-coding constructions in NL Basque self-motion descriptions, I next deal with the second question of this chapter. With respect to path coding position, is there any difference between descriptions of self-motion and caused motion? Experimental data on this latter less investigated motion event type will uncover further restrictiveness of head path-coding constructions in NL Basque. In this section we will discuss caused-motion descriptions based on the results of 18 clips for caused motion described in Section 3.

5.1 Causative motion verbs

As will be shown in 5.2, most of the video clips depicting caused-motion events were described by Figure-object constructions, which are defined for NL Basque as those which express Figure as the direct object (the absolutive argument) or the indirect object (the dative argument) of the transitive main verb. The causative motion verbs in Table 2 appeared in Figure-object constructions used for caused-motion descriptions in this study. The forms in parentheses are regional variants that are marginalized in Standard Basque. The transitive verbs *sartu* 'put in,' *pasatu* 'pass, make pass over/through,' and *heldu* 'send' have intransitive counterparts in the same form, i.e., *sartu* 'enter,' *pasatu* 'pass by,' and *heldu* 'arrive' (see Section 2.2.1 for the causal–noncausal alternation). These intransitive path verbs can also take the productive causative suffix *-araz*, deriving causative path verbs like *sarr-araz-i* [enter-CAUS-PFV] 'make enter' and *pas-araz-i* [pass-CAUS-PFV] 'make pass through'.[23]

Some verbs and verbal expressions such as *deitu* 'call' and *ostiko bat eman* 'kick' are not strictly causative, in that they do not entail the fulfilment of motion, but they do indicate the means by which motion is brought about.

Each category will be examined in turn in the following sections.

5.1.1 Causative path verbs

The verb *sartu* 'put in' is the most frequent causative path verb in Table 2, which is partly because most of the caused-motion events in the experiment involve TO.IN. It

23 The formative *-araz* is suffixed to a verb radical, a non-finite form that consists of the perfective participle stripped of its inflectional ending *-i* or *-tu*. A radical final *a* elides before the suffix. The trill /r/ is spelled as *rr* intervocalically, otherwise as *r*, hence *sar-tu* and *sarr-araz-i*.

Table 2: Frequencies of caused-motion verbs and related expressions in Experiment A.

Causative Path	**Total 43**	**PUT and GIVE**	**Total 18**
sartu 'put in'	34	*ezarri* 'put'	11
pasatu (*pasa*) 'pass, make pass over/through'	7	*altxatu* 'put'	1
pasarazi 'make pass through'	1	*eman* 'give, put'	5
sarrarazi 'make enter'	1	*eskaini* 'offer'	1
Causative Deictic	**Total 34**	**Means**[24]	**Total 133**
ekarri (*ekarki*) 'bring'	20	*igorri* (*egorri*) 'send'	84
eraman (*eramaki*, *ereman*) 'take'	14	*deitu* 'call'	26

can describe /To.in/ scenes with different means including /MoveByHand/, /Carry/, and /Kick/, as exemplified in (18).

(18) a. *Maria-k liburu-a barne-an sar-tzen du.*
Maria-ERG book-the inside-loc put.in-IPFV PRS
'Maria puts the book in.' (#11, /MoveByHand-To.in-AwyFrmS/)

b. *Kadera barne-ra sar-tzen du en-e adiskide-a-k.*
chair.the inside-ALL put.in-IPFV PRS 1SG-GEN friend-the-ERG
'My friend puts the chair in.' (#03, /Carry-To.in-TwrdS/)

c. *Lagun-a-k baloin-a etxe-ra sar-tu du ate-tik.*
friend-the-ERG ball-the house-ALL put.in-PFV PRS entrance-ABL
'My friend put the ball in through the entrance to the house.'
(#02, /Kick-To.in-AwyFrmS/)[25]

24 A reviewer points out that the verbs *igorri* 'send', *bota* 'send', *heldu* 'send', and *jaurtiki* 'throw' are likely to express path in addition to means because they denote a locative change with respect to the sender and the sender's initial position. This could be explained away by saying that the path restriction is a consequence of the particular action involved and is secondary in nature, as Matsumoto (this volume) stated. In any case, I will assume the alleged means verbs to be distinct from "pure" path verbs, even if the former show semantic restrictions on path.

25 As a reviewer points out, "like in many other languages, it is not clear that *ezarri* denotes, by itself, any kind of path (see examples such as *lanpara zutik ezarri* 'put the lamp up(right)', *taula paretaren kontra ezarri* 'put the board against the wall', *margoa atera buruz ezarri* 'put the picture facing the door')." The reviewer proposes that "this verb rather refers to a general change of state, whose exact nature depends on the final state described by the PP or adverbial to which it is associated." Even if one admits the "general change-of-state" meaning to the verb, it seems to me that the change has to be "locational" in a somewhat abstract sense and that the meaning arguably involves a very general path notion.

5.1.2 PUT and GIVE

Unlike English *put*, which is mainly used to describe controlled caused motion, the verb *ezarri*, usually glossed as 'put', can be employed to express caused-motion events with various kinds of means. The sentences in (19) exemplify the verb used to describe a /MoveByHand/ scene and a /Kick/ scene, respectively. In this study, I thus consider the verb as encoding path only, but I will treat it separately because the verb involves at best a very general path meaning of goal-orientedness.[26]

(19) a. *Liburu-a zaku-an ezarr-i du.*
book-the bag-LOC put-PFV PRS
'She put the book in the bag.' (#09, /MoveByHand-To.in-Orthog/)

b. *Balon-a ate-a-ren barnekalde-an ezar-tzen du.*
ball-the entrance-the-GEN inside-LOC put-IPFV PRS
'He puts the ball inside of the entrance.' (#09, /Kick-To.in-TwrdS/)

Another verb to be mentioned is *eman* 'give, put'. Despite the verb's usual gloss 'give', we can posit for it the sense 'put' when it describes events without a recipient, as shown in (20a). Since the events found in /MoveByHand/ scenes involve the transfer of the gift from the giver to the recipient, some occurrences of *eman* are ambiguous between 'give' and 'put'. In those cases where there is explicit mention of the recipient, as in (20b), its meaning is treated as 'give', and otherwise I counted it as encoding path, just like *ezarri* 'put'.

(20) a. *Liburu bat zaku-an* ***eman*** *du.*
book a bag-LOC put.PFV PRS
'She put a book in the bag.' (#09, /MoveByHand-To.in-TwrdS/)

26 As a reviewer points out, "like in many other languages, it is not clear that *ezarri* denotes, by itself, any kind of path (see examples such as *lanpara zutik ezarri* 'put the lamp up(right)', *taula paretaren kontra ezarri* 'put the board against the wall', *margoa atera buruz ezarri* 'put the picture facing the door')." The reviewer proposes that "this verb rather refers to a general change of state, whose exact nature depends on the final state described by the PP or adverbial to which it is associated." Even if one admits the "general change-of-state" meaning to the verb, it seems to me that the change has to be "locational" in a somewhat abstract sense and that the meaning arguably involves a very general path notion.

b. *Ne-re* *lagun-a-k* ***emai****-ten* *zau-ta-n* *liburu* *bat*
1SG-GEN friend-the-ERG give-IPFV PST-DAT:1SG-PST book a
ezarr-i-z *en-e* *zaku-an.*
put-INF-SIM 1SG-GEN bag-LOC
'My friend gave me a book, putting it in my bag.'
(#08, /MoveByHand-To.in-TwrdS/)

5.1.3 Causative deictic verbs

NL Basque has a pair of causative deictic verbs, *ekarri* 'bring' and *eraman* (dialectally *ereman*) 'take', both of which denote co-motional caused-motion events, as noted in 2.2.2. Since they cannot describe the means MOVE.BY.HAND, KICK, or CALL, I assume that they encode means CARRY in addition to deixis. Some of the participants neutralize the deictic opposition in favor of *ekarri*. In such cases, the verb's meaning is considered to be CARRY without the deictic component. A couple of examples from a participant with the opposition are given in (21).

(21) a. *Adiskide-a-k* *ekar-tzen* *du* *jarralki-a.*
friend-the-ERG bring-IPFV PRS chair-the
'My friend brings the chair.' (#10, /Carry-To.in-TwrdS/)
b. *Eremai-ten* *du* *barne-ra.*
take-IPFV PRS inside-ALL
'She takes it inside.' (#10, /Carry-To.in-AwyFrmS/)

5.1.4 Means verbs

The verb *igorri* 'send' (or its regional variant *egorri*) was the most common choice to describe the means of /Kick/ scenes. It denotes ballistic caused-motion events, including kicking, throwing, and sending someone. The verb *bota* 'send' was also used with a similar meaning in the responses. These verbs can take head-external path expressions, as shown in (22).

(22) *Barne-rat* *igor-tzen* *du* *baloin-a.*
inside-ALL send-IPFV PRS ball-the
'He sent the ball inside.' (#10, /Kick-To.in-TwrdS/)

Basque has no verbal equivalent of English *kick*. A comparable meaning can be expressed by means of the verb *eman* 'give' taking as object the noun *ostiko* 'kick' and its variants. The verb complex *ostiko bat eman* 'give a kick' was used very occasionally as the main verb of clauses describing /Kick/ scenes. Such phrasal expressions are deemed to be headed by the light verb *eman*, with the means KICK encoded outside the main verb. It is impossible for these expressions to be accompanied by head-external path expressions. Subordinate clauses with the verbs *igorri* or *bota* 'send' can be added to circumvent the syntactic restriction. However, a more common way to indicate the specific means of KICK was to employ adverbial phrases, such as {*ostiko*/*zango-ukaldi*} *bat-ez* [kick one-INST] 'with a kick' and *zango-z* [foot-INST] 'by foot'.

Co-motional means is expressed by the causative deictic verbs *ekarri* 'bring' and *eraman* 'take', as discussed in Section 5.1.3. There are no dedicated verbs expressing MOVE.BY.HAND. The verb *ezarri* 'put' can also be used to describe ballistic caused-motion events, as shown in Section 5.1.2.

The following examples illustrate that the verb *deitu* 'call' can appear in causative-like constructions with head-external path phrases or subordinated purpose clauses. These constructions were rarely used in the responses, however, as discussed in the next section.

(23) a. *En-e* *adiskide-a-k* *dei-tzen* *du* *Maria* *barne-rat.*
1SG-GEN friend-the-ERG call-IPFV PRS Maria inside-ALL
'My friend calls Maria inside.' (#05, /Call-To.in-AwyFrmS/)

b. *En-e* *adiskide-a-k* *dei-tzen* *du* *Maria* *etor-tze-ko.*
1SG-GEN friend-the-ERG call-IPFV PRS Maria come-GER-PUR
'My friend calls Maria to come.' (#05, /Call-To.in-TwrdS/)

5.2 Construction types in caused-motion descriptions

Figure 13 shows the construction types used in responses for the caused-motion clips of /To.in/ scenes for different types of means. The construction types are based on the sentence structure (simplex, complex, coordinate) and on the syntactic status of the figure (moving entity). Figure-object constructions (indicated by slashes) were employed most of the time except for /Call/ scenes, which were most commonly described by coordinate sentences like (24).

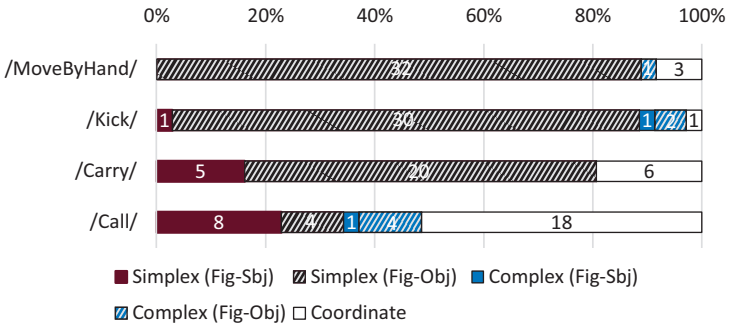

Figure 13: Construction types used in the descriptions of four caused-motion events.

(24) *Ne-re lagun-a-k Mirari dei-tzen du eta Mirari heldu da.*
1SG-GEN friend-the-ERG Mirari call-IPFV PRS and Mirari come.SYN PRS
'My friend calls Mirari and Mirari comes.' (#07, /Call-To.in-TwrdS/)

Note also that non-coordinate Figure-subject constructions were used about one-fifth of the time for /Carry/ and /Call/ scenes. In most such cases for /Call/ scenes where Figure was expressed as the subject, the response consisted of a simplex sentence without the mention of means. As for /Carry/ scenes, almost all the Figure-subject constructions describe the carrier's motion along with an adverbial expression with the meaning 'with the chair (in one's hands)', as exemplified in (25).

(25) *En-e adiskide-a sar-tzen da ber-e kadera esku-etan.*
1SG-GEN friend-the enter-IPFV PRS 3SG-GEN chair.the hand-the.PL.LOC
'My friend enters with her chair in her hands.' (#01, /Carry-To.in-AwyFrmS/)

5.3 Coding positions of path in caused-motion descriptions: /To.in/

Based on her data collected through the Put & Take stimuli (cf. Bowerman et al. 2004), Ibarretxe-Antuñano (2012) claims that Basque is a typical verb-framed language with respect to the description of placement/removal events that involve the TO.IN/OUT path. The data in this study suggest that this is not the case for all caused-motion events. Specifically, head path-coding constructions tend to be used *unless* means is mentioned. Figure 14 shows the coding patterns of path in the descriptions of four /To.in/ caused-motion events. For /MoveByHand/ scenes, path

was encoded by the head most of the time (88.9% of the time), whereas the absence of head path coding (i.e., "Head-extrnls only") was much more common for the other three types of scenes.

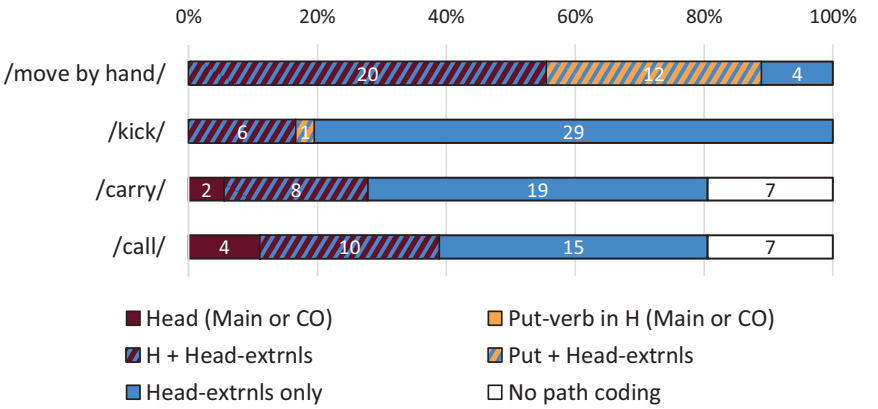

Figure 14: Path-coding patterns of caused-motion descriptions.

In NL Basque, reference to means typically entails encoding it in the head position, and thus path is forced to be expressed head-externally (or in the main verb of a conjunct clause of a coordinate sentence). This tendency is indicated in Figure 15, which shows the frequency of head path coding in the non-coordinate sentences with different sets of components coded, i.e., path with means and path without means. Path is predominantly expressed by the main verb in the absence of means and greatly less so in the presence of means.

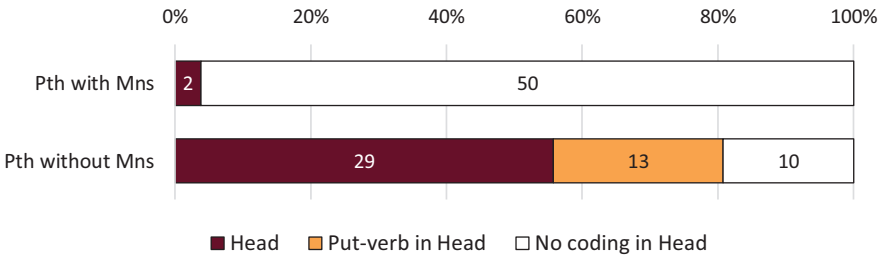

Figure 15: Head path coding in non-coordinate sentences with or without means specification.

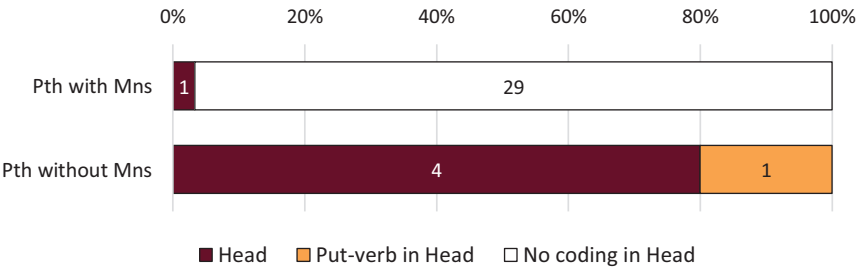

Figure 16: Head path coding in non-coordinate sentences for /Kick/ scenes with or without means specification.

The responses for the /Kick/ scenes most clearly show that path is encoded in the head position without means. As shown in Figure 16, path was expressed in the main verb 3.3% of the time when means was mentioned, while without reference to means, it was encoded in the head 80.0% of the time.[27] When both path and means are explicitly specified, the most common way to describe such /Kick/ scenes is to use the head verb encoding means with head-external path expressions, as exemplified in (22) above. Head-external means expressions, including the subordinate clause *ostiko-tto eman-ez* [kick-DIM give-SIM] 'kicking' and the adverbial phrase *ostiko bat-ez* [kick one-INST] 'by kick', were rarely employed with path head verbs. Indeed, such adverbial phrases as *ostiko batez* always modified means verbs like *igorri* 'send' in the responses, although causative path verbs do allow adverbial expressions to modify them.

The responses for the /Carry/ scenes further corroborate the characterization of NL Basque caused-motion descriptions as using head path coding without means. As shown in Figure 17, path was never encoded in the head position when means was expressed. In other words, head path-coding constructions were utilized only when means was *not* expressed (71% of all responses that had path encoded without means). The means of causation was always expressed by *ekarri* 'bring' and *eraman* 'take' in the head position; they were never used in subordinate clauses. When means was not mentioned, the main verb was transitive *sartu* 'put in' (4 instances, 43%), intransitive *sartu* 'enter' (2 instances, 21%), or *heldu* 'come' (2 instances, 21%).

27 In total, there were five responses in which path was encoded without means. A greater amount of data is required to validate the tendency observed here.

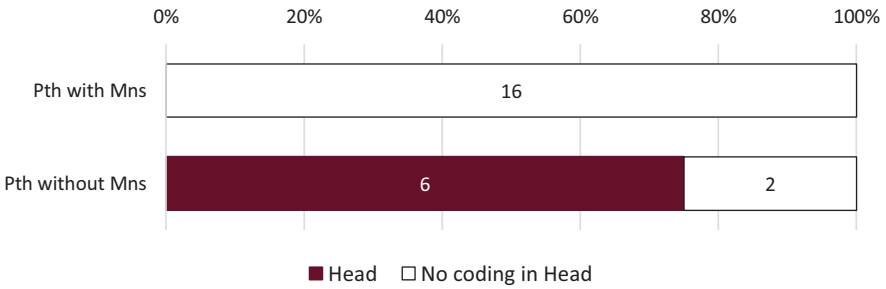

Figure 17: Head path coding in non-coordinate sentences for /Carry/ scenes with or without means specification.

/MoveByHand/ scenes are special in that this type of means was never explicitly mentioned in the responses with any kind of expressions. As expected, path was almost always encoded in the head position in the descriptions for /MoveByHand/ scenes. Among the responses with path expressed, the main verb was a causative path verb, including *sartu* 'put in' and *ezarri* 'put', 89% of the time (the other sentences were headed by a verb of giving like *eman*). Note that, with respect to the "verb-framed" nature of NL Basque placement/removal descriptions claimed in Ibarretxe-Antuñano (2012), most of the scenes discussed involve a controlled caused-motion event with the type of means /MoveByHand/ (the others depict a controlled caused motion whose Figure is an integrated body part of the causer). NL Basque may appear to be head path coding (or "verb-framed") when one investigates a small portion of caused-motion descriptions, i.e., those that involve /MoveByHand/, because this type of means – the semantic component relevant to the path-coding position – tends not to be mentioned explicitly in NL Basque.

As mentioned in Section 5.2, /Call/ scenes were usually described by coordinate sentences, where one of the clauses is headed by *deitu* 'call' and the other by a path or deictic verb of self-motion. Since the symmetric structure of coordinate sentences obscures the distinction between head path coding and head-external path coding, here I confine the scope of discussion on path-coding positions in /Call/ scenes to non-coordinate sentences. Figure 18 shows which semantic component is expressed by the main verb in responses with different semantic components encoded, i.e., path with means and path without means. When both path and means are mentioned, means is encoded in the head position 80% of the time, whereas path is expressed in that position 10% of the time. When path is specified without means, it is encoded in the head position slightly more often, 29% of the time.

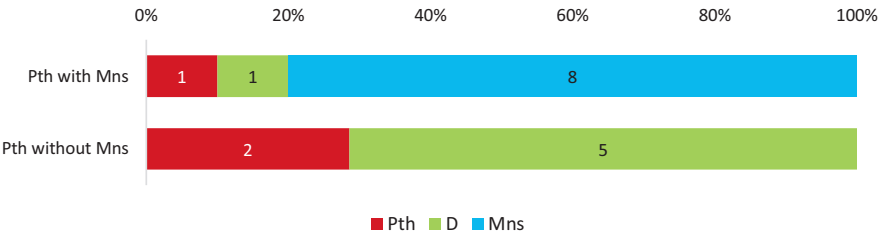

Figure 18: Semantic components of the main verb in non-coordinate sentences for /Call/ scenes with or without means specification.

Figure 18 offers no sharp contrast between path descriptions with and without means, unlike those descriptions involving the other three types of means. This is mainly because if means is not encoded in the head position, only Figure-subject constructions can be used to describe /Call/ scenes. For the other three types of scenes, there is the possibility of employing a causative path verb as the main verb, such as *sartu* 'put in' and *ezarri* 'put', which leads to a considerable degree of head path coding. By contrast, for caused motion in /Call/ scenes, which these causative path verbs are not suitable to describe, the only viable option is to utilize a Figure-subject construction headed by a path or deictic verb, if means is not expressed in the main verb. As demonstrated in Section 4, NL Basque tends to encode deixis (if mentioned) in the head position rather than path in self-motion descriptions, hence the relatively low frequency of head path coding without means for /Call/ scenes.

5.4 Coding position of deixis in caused-motion descriptions

The data further reveal that deixis tends to be expressed head-externally as long as either means or causation is mentioned. First, with means specification, deixis is encoded in the head position only 5% of the time (excluding clauses headed by the causative deictic verbs, because they also encode means). Second, when both deixis and path are mentioned, non-causative path verbs never win the main verb position against deixis, but causative path verbs do 16% of the time.

In particular, when only the two semantic components excluding means are specified, there are two major possibilities for describing the caused-motion event: a Figure-subject construction headed by a deictic verb with head-external path expressions, or a Figure-object construction headed by a causative path verb with head-external deictic expressions, each of which is exemplified in (26). In these

cases, Figure-subject constructions are confined to /Carry/ and /Call/ scenes, on the one hand, and Figure-object constructions to /Kick/ and /MoveByHand/ scenes, on the other.

(26) a. *En-e adiskide-a* ***barne-rat heldu*** *da ber-e kadera-rekin.*
1SG-GEN friend-the inside-ALL come.SYN PRS 3SG-GEN chair.the.COM
'My friend comes inside with her chair.' (#12, /Carry-To.in-TwrdS/)

b. *Hor d-en emazte-a-k zaku-an liburu bat* ***sar-tu*** *dau-****t****.*
there PRS.be-REL woman-the-ERG bag-LOC book one put.in-PFV PRS-DAT:1SG
'The woman there put a book in the bag for me.'
(#06, /MoveByHand-To.in-TwrdS/)

5.5 Discussion

Caused-motion description in NL Basque can be characterized as competition for the main verb position between semantic components, hierarchically ordered as follows:

(27) causation+means > causation+path > deixis > path

When two or more components in this hierarchy are mentioned explicitly in a non-coordinate sentence, the leftmost one tends to win the head position, and the rest are expressed head-externally. In descriptions of caused-motion events, causation is fairly likely to get attention and be mentioned. In many cases means of causation is expressed in the main verb together with causation, especially for /Kick/ and to some extent for /Carry/ events. If means is omitted (as in many descriptions of /MoveByHand/ scenes), the main verb may well be a causative path verb, the only major verb type that lexicalizes causation of motion, except for means verbs. In that case, path is encoded in the head concomitantly with the head coding of causation. For /Carry/ and /Call/ scenes, which involve a human Figure, the use of a Figure-subject construction is more likely than for other types of scenes, omitting means and causation. In such situations, the mention of deixis tends to be made by way of the main verb, which forces path to be encoded head-externally, just like in self-motion descriptions.

6 Conclusion

Basque has been claimed to be a verb-framed/head path-coding language. In this study, however, I have demonstrated that an experiment embracing the recent theoretical progress in this field significantly changes the overall picture.

Specifically, by recognizing and extending the scope of the investigation to a variety of causative motion expressions as well as self-motion expressions, I have shown that the language's tendency to use head path coding is conditional. The tendency is contingent upon the omission of other semantic components, i.e., deixis and means of causation.

In self-motion descriptions, the absence of deixis offers the main verb position to path, though in actuality, consistent attention to different types of deixis makes head path coding less frequent than expected. In caused-motion descriptions, the omission of means allows causation to be encoded in the head position by a causative path verb. The frequency of means specification varies depending on the type of means. MOVE.BY.HAND, for example, was never mentioned in the relevant responses, whereas KICK was very often specified. In the former cases, the descriptions show head path-coding characteristics.

In descriptions of /Carry/ and /Call/ scenes, causation is frequently ignored, so that neither means verbs nor causative path verbs are employed. In this situation, path is likely to be encoded in the head position if deixis is not mentioned. However, just like in self-motion descriptions, deixis specification is considerably frequent, restricting the possibility of head path coding.

The head path-coding nature of NL Basque thus turns out to be contingent on the mention of other semantic components including deixis, means, and causation. In self-motion descriptions, path in the narrow sense is encoded in the head position especially when deixis is omitted. By contrast, in caused-motion descriptions, path in the narrow sense is fairly often expressed by the main verb even when deixis is mentioned, since causation tend to be encoded in the head position, when means is omitted, and causative path verbs are the only appropriate verb type.

Abbreviations

1	1st person
2	2nd person
3	3rd person
ABL	ablative
ABS	absolutive
ADN	adnominal

ADVLZ	adverbializer
AFF	affirmative
ALL	allative
CNV	converb
COM	comitative
DAT	dative
ERG	ergative
GEN	genitive
GER	gerund
INST	instrumental
IPFV	imperfective
LOC	locative
PFV	perfective
PL	plural
PRS	present
PST	past
PUR	purposive
REL	relative clause
RES	resultative
SG	singular
SIM	simultaneous
SYN	synthetic
TERM	terminative

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