

New Horizons in the Study of Motion

New Horizons in the Study of Motion:

*Bringing Together Applied
and Theoretical Perspectives*

Edited by

Iraide Ibarretxe-Antuñano
and Alberto Hijazo-Gascón

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INTRODUCTION

THE DOMAIN OF MOTION FROM DIFFERENT APPLIED AND THEORETICAL PERSPECTIVES

IRAIDE IBARRETXE-ANTUÑANO
AND ALBERTO HIJAZO-GASCÓN

Motion is an essential concept in our life experience. We change places and we move things from one place to another. Since our early childhood we move and we see and hear how other people and other entities move. We constantly talk about motion in our daily lives.

With motion being so central to us, it is only natural for languages, our main tools to communicate, to include different expressions and ways to describe motion, but do speakers of all languages think and talk about motion in the same way? This is a big question that has been addressed from different research fields including linguistics. A well-known approach to motion events in linguistics is Talmy's (1991, 2000) theory of lexicalization patterns and its psycholinguistic application, Slobin's (1991, 1996, 2004) "thinking for speaking" theory. In a nutshell, a semantic domain such as motion can be conceptually characterized by a specific set of semantic components (Motion, Path, Manner...) but the way these components are codified may vary across languages. Languages have different lexicalization patterns. According to Talmy (1991, 2000), there are two main lexicalization patterns: verb-framed languages, which codify Path in the main verb and Manner outside (e.g. Spanish *salir corriendo* 'exit running'), and satellite-framed languages, which follow the opposite pattern; Manner in the main verb and Path outside, in the so-called satellite (e.g. English *run out*).

Talmy's two-way typology brought forward an old debate in linguistics: does the language we speak influence the way we think about motion? If there are two different patterns, does it mean that verb-framed language speakers talk about motion differently from satellite-framed speakers? Slobin investigated this question in oral data produced by

children and adults in different languages (see, Berman and Slobin 1994). He claimed that speakers are influenced by their own language because they have to adapt themselves to the resources readily available. In other words, languages always make speakers take a perspective when they talk about motion; consequently, speakers pay attention to different aspects of motion. Slobin and colleagues showed that satellite-framed and verb-framed language speakers describe Manner and Path differently; they had different “rhetorical styles”. Whereas the former provided more details and more dynamic descriptions of Manner and Path, the latter preferred more static descriptions and only included information about Manner when it was discourse relevant.

This “Talmy-Slobin tandem” has been quite influential in present-day linguistics. Motion researchers have had to refer to this work either to agree or disagree. It is a “must-cite” reference. The papers in this book are a clear example of how successful and popular this “Talmy-Slobin tandem” is in linguistics in general. All chapters stem from their basic ideas to explore how second language learners acquire these motion patterns in their second language (Chapters 1, 2, 3), to explain what translators render in their target languages (Chapters 4, 5), to refine some basic notions such as Path, Deixis, boundary-crossing or fictive motion (Chapters 2, 3, 6), to use them as a springboard to find new applications (Chapter 8), and to explain other linguistic phenomena (Chapter 5, 7). In short, every page in this book is impregnated with Talmy-Slobin’s work. However, a common trait of all papers, and a necessary ingredient in any scientific work, is their critical assessment of these basic theoretical assumptions. All chapters in the volume contribute to the development of this theory. Chapters 1, 2, and 3 propose new solutions to theoretical-related issues within this framework. In other cases, a combination of Talmy-Slobin’s theories with other models is presented. These alternative models are sometimes conceptually-close (Chapters 5, 8) but some other times, conceptually-distant (Chapter 4, 6, 7).

This book is the result of a scientific meeting organized by the research project *Motion and Space in semantic typology and its application to translation and language acquisition*—MovEs (Spanish Government FF12010-14903), in collaboration with the research group Sylex (Syntax and Lexis) at the University of Zaragoza, Spain.¹ The main goal of the MovEs project was the typological study of the lexicalization of motion

¹ This book falls within the scope of the Spanish Government funded research projects MovEs I (FF12010-14903) and MovEs II (FF12013-45553-C3-1-P). We also gratefully acknowledge the help of Kim Ridealgh and all contributors for their work and enthusiasm.

and space from a theoretical and applied perspective. More concretely, the project sought (i) to investigate problematic or understudied topics within the Talmy-Slobin tradition such as the issue of variation within lexicalization groups or the role of ideophones and gesture (see, Ibarretxe-Antuñano forthcoming), (ii) to explore how the theoretical underpinnings of this framework could be applied to areas such as second language acquisition and translation, and (iii) to open up new synergies with other frameworks and areas that could benefit from this theory of thinking for speaking in the lexicalization patterns of motion events. In the closing meeting, held in Zaragoza in November 2013, the audience had the opportunity to listen to different experts discussing these issues as well as to read posters with applied and innovative proposals to expand Talmy and Slobin's theories. Seven of the papers included in this book come from this poster session, and one was specially written for this book.

This book is divided into two parts. The first part "Applying Motion" consists of four studies on the L2 acquisition and translation of motion events. The second part "Widening Theoretical Perspectives" contains four chapters that combine Talmy-Slobin's work with other theoretical approaches and research areas.

"Applying motion" opens with Liste-Lamas's study on the use of German particles *hin-/her-* and their acquisition by native Spanish speakers. After a clear and succinct description of *hin-/her-* in German, Liste-Lamas presents her preliminary study on how Spanish learners of German as a foreign language at different levels of proficiency (A2, B2, C1) deal with these particles. She finds out that learners at all levels have understood how to express Path in German, that is, outside the main verb, but that all learners have problems with the use of *hin-/her-*. She argues that these problems might be due to several converging factors such as the satellite system and the encoding of the speaker's perspective in German. She finally concludes that the use of *hin-/her-* is not properly addressed in L2 German textbooks.

The second chapter, Yoshinari's "Describing motion events in Japanese L2 acquisition: how to express deictic information", discusses the notion and acquisition of Deixis. The author considers that Deixis should be considered a separate semantic component and not as a subcomponent of Path as described in Talmy's framework. She argues that Deixis is often encoded separately from Path in several languages, and above all, that speakers of typologically-different languages may not pay attention to Deixis in the same way. In order to support these claims, Yoshinari presents results from a second language acquisition study of native speakers of English and Mandarin Chinese learning Japanese at an

intermediate level. Based on data from a video production study, this author argues that Deixis is not only a crucial characteristic of Japanese, pervasively described in all motion situations, but also a conceptual and grammatical challenge for Japanese intermediate learners who seem to find it difficult to describe this subcomponent at all times and by means of different complex predicates.

The next chapter by Rosa Alonso-Alonso focuses on the boundary-crossing constraint (Aske 1989, Slobin and Hoiting 1994); that is, the restriction that explains why verb-framed language speakers do not usually employ a Manner of motion verb as a main verb to describe the crossing of a conceptual boundary. After a review of some of the main findings in first and second language acquisition of motion events, Alonso-Alonso presents a study on how native English speakers and native Spanish speakers with English as a second language at a B1 level describe motion INTO A BOUNDED SPACE. Alonso-Alonso finds that native English speakers, as expected, conflate Manner + Motion in the main verb in all into scenes, whereas Spanish learners of English behave differently and choose among three different options: (i) conflation of Motion and Manner, (ii) no conflation of Motion and Manner, and (iii) both. Alonso-Alonso explains these choices on the basis of Spanish cross-linguistic influence—Spanish seems to be more permissive with vertical boundary-crossing events—and the *aktionsart* of the verb—achievement verbs are more likely to accept motion INTO A BOUNDED SPACE than activity verbs.

The last paper in this first part, Molés-Cases' chapter, discusses the translation of Manner of motion from German into Spanish on the basis of 812 motion events drawn from the parallel corpus Motus-DE-ES. After a detailed and explanatory review of the main relevant translation techniques proposed in Translation Studies and Semantic typology/Thinking for Translation theories, Molés-Cases puts forward a refined model to account for the differences and similarities found in the translation of Manner of motion in these motion events. This model consists of eight translation techniques: lexical equivalence, paraphrases, reduction, specification, modulation, combination, omission, and addition.

The second part, "Widening Theoretical Perspectives", opens with Lewandowski's analysis of the locative-resultative construction (Goldberg 1995) in German and Polish, both satellite-framed languages, and their equivalents in Spanish, a verb-framed language. In the first part, Lewandowski offers a detailed description of the formal and semantic properties of this construction in German and Polish. The author proposes "x causes y to be saturated by z" as the general meaning of this

construction, where x is the entity originating the change, y the affected entity, and z the *locatum* or substance that saturates the experiencer of the change. In the second part, Lewandowski investigates how this German and Polish locative-resultative construction is rendered in Spanish, a language that lacks this type of structure. Based on data from two parallel corpora, Linguee and Glosbe, he finds that, contrary to what is expected, this construction is often translated with a change of location causative verb instead of a resultative verb, mainly due to encyclopedic knowledge. The chapter ends with a brief comment on the cognitive underpinnings of these findings.

The goal of Marqueta-Gracia and Horno-Chéliz's chapter is to provide an account of fictive motion (Talmy 1983) from a syntactic point of view. Based on a corpus of 763 sentences extracted from 158 architectural reviews in Spanish, these authors thoroughly characterize their formal syntactic and semantic properties (semantic features and thematic role of the subject, presence or lack of the clitic *se*, functional categories, type and *aktionsart* of the verb, internal merge (Chomsky 1995)). They show that fictive motion turns up in three different syntactic environments: (i) when the subject can be interpreted as the object that, without being movable, simulates the motion, (ii) when the subject is understood as the cause of the induced motion, and (iii) when the subject is interpreted as the Path where the motion takes place. They further argue that some stative sentences are not cases of fictive motion but examples of what they call "implied motion", that is, cases where the motion needs to have taken place in the Logical Form before the Time of the sentence.

The next chapter, Mangialavori-Rasia's "Human perception of the notion of change becoming grammatically decisive: abstract motion, boundaries, and verbal derivation", offers an account of deadjectival state and change of state predicates in Spanish and their distribution with degree modifiers. This author argues that the eventive structures of states and change of state predicates are influenced by scale structures, and that the interpretation of the deadjectival verbs is different depending on the type of scale (open or close) associated with the predicate they appear in. In order to support these claims, Mangialavori-Rasia combines notions (Path, goal, source, route, boundedness, etc.) from different but complementary approaches to motion events such as Jackendoff's (1983, 1996) conceptual semantics, and Talmy's (2000) cognitive semantics, among others. She concludes that the features that characterize these events and the verb classes they contain may be related to the different ways in which motion is construed both from a cognitive as well as linguistic viewpoint.

Finally, the book closes with Salza's chapter "A cognitive semantics based ontology representing path expression formulas over a linguistic metamodel". This author claims that Talmy's (2000) conceptual semantics offers useful tools to build "ontologies"—hierarchically organized sets of classes/concepts and properties/relations crucial for a given domain that represent concepts from the standpoint of a human cognitive agent. In order to create an OWL 2 ontology for motion events, Salza combines a set of Talmian spatial notions (region, location, object, mass, shape, boundary, contour) with a DOLCE upper ontology grounded Linguistic Meta-Model. Salza argues that this type of ontologies is useful because they provide formal descriptions of the knowledge underlying motion events. This way of formally expressing knowledge about motion can have multiple applications to other areas not only in the field of computational linguistics (information extraction, machine translation) but also in semantic typology itself (massive crosslinguistic analyses of several linguistic features in motion events).

Talmy's lexicalization patterns and Slobin's Thinking for Speaking hypothesis have attracted a lot of attention in fields such as linguistics, psychology, and anthropology, just to name a few. Researchers might not agree on how or to what extent lexicalization patterns influence the speakers' online/offline verbalization of motion. However, it is an undeniable fact that these theories have been, and still are, a "trending topic" in these research areas. We do not know how much longer motion and the "Talmy-Slobin tandem" can keep this privileged position in current linguistics but we hope that the collection of papers included in this book will open up new horizons in the study of motion in the years to come.

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PART ONE

APPLYING MOTION

CHAPTER ONE

GERMAN DIRECTIONAL ADVERBS
WITH *HIN-* AND *HER-*:
A PRELIMINARY STUDY ON THEIR
ACQUISITION BY L1 SPEAKERS OF SPANISH*

ELSA LISTE-LAMAS

1. Introduction

The purpose of this article is to investigate the use of the German directional adverbs with *hin-* and *her-* by native speakers of Spanish. Based on Talmy's typology of lexicalization patterns (1985, 2000), we first introduce the main differences between Spanish and German with regard to the encoding of motion events. We then present the system of satellites in German and the morphosyntactic and semantic characteristics of the directional adverbs with *hin-* and *her-*. We thus intend to highlight the potential difficulties in the expression of motion events in German as a Foreign Language. In the second part of the paper, we present the methodology and the results of a preliminary study on the use of *hin-* and *her-* by Spanish-speaking learners of German as a Foreign Language. The analysis of the results will for the first time, and to the best of our knowledge, point out the most problematic issues that native speakers of Spanish encounter when using these adverbs in German, and in the expression of Path in general.

* The research reported in this paper received financial support from the Spanish Ministry of Education, Culture and Sports (FPU grant, AP2012-5850). This study is part of a more extensive PhD project aiming to investigate the encoding of Path and the use of directional adverbs with *hin-* and *her-* by Spanish-speaking learners of German as a Foreign Language.

2. Motion Events in Spanish and German

According to Talmy's typology of lexicalization patterns (1985, 2000), Spanish and German belong to two different groups. Spanish, like most Romance languages, is classified as a verb-framed language,¹ while German, like the other Germanic languages, is categorized as satellite-framed.

Talmy (1985, 2000) analyzes basic motion events as consisting of four basic components: (i) the Figure, i.e., the moving entity; (ii) the Ground, i.e., the entity of reference with regard to which the movement of the Figure takes place; (iii) the Path, that is, the course followed by the Figure with respect to the Ground, and (iv) the Motion, i.e., the presence of motion itself. In addition to these internal components, a motion event can also be associated with an external Co-event, which typically codifies two components, namely (v) the Manner: the way in which the Figure moves; and (vi) the Cause: the cause of the motion. Examples (1)-(2) below illustrate how these components apply to Spanish and German, respectively, and hence evince the differences between both languages.

(1) <i>El niño</i>	<i>baja</i>	<i>las escaleras</i>	<i>corriendo</i>
the child	descends	the stairs	running
Figure	Motion/Path	Ground	Manner
(2) <i>Das Kind</i>	<i>rennt</i>	<i>die Treppe</i>	<i>herunter</i>
the child	runs	the.ACC stair	towards.the.speaker-down
Figure	Motion/Manner	Ground	Path

As can be gathered from (1) and (2) above, Spanish and German resort to the same linguistic strategies to encode the Figure (through the noun phrases *el niño* and *das Kind* 'the child'), the Motion itself (through the present forms *baja* 'goes down' and *rennt* 'runs'), and the Ground

¹ Berthele (2006) classifies Romansh as a satellite-framed language, since the satellite-framed pattern is the preferred one in this language. Romance verb-framed languages show intratypological variation in the encoding of Path and the use of (pseudo-)satellite constructions, as claimed by Hijazo-Gascón and Ibarretxe-Antuñano (2013) for Spanish, French and Italian. (Pseudo-)satellite constructions are also very frequent in other minority Romance languages like Friulian (Vicario 1997), and to a lesser extent in Aragonese (Hijazo-Gascón and Ibarretxe-Antuñano 2010). As pointed out in Hijazo-Gascón and Ibarretxe-Antuñano (2010: 274), further research on motion events using the usual eliciting methods should shed more light on the differences within Romance languages.

(through the noun phrases² *las escaleras* and *die Treppe*, both meaning ‘the stairs’). However, the Path, in this particular case a downward movement, is encoded differently in these languages. Thus, it is expressed by the verb *bajar* ‘go down’ in Spanish, whereas German resorts to the satellite *herunter* ‘down’. Furthermore, the Manner, which is contained in the present form *rennt* ‘runs’ in German, is expressed by the gerund *corriendo* ‘running’ in Spanish.

Talmy’s typology reflects the pattern that is habitually used and preferred in a particular language.³ It is thus possible to use manner verbs in Spanish (e.g. *correr* ‘to run’, *nadar* ‘to swim’, *rodar* ‘to roll’ etc.), and to find path verbs in German (e.g. *betreten* ‘to enter’, *kreuzen* ‘to cross’, *verlassen* ‘to leave’ etc.). Nevertheless, the use of manner verbs in Spanish is regulated by the so-called *boundary-crossing constraint* (cf. Aske 1989, Slobin and Hoiting 1994, Slobin 1996; see also Alonso-Alonso this volume). Spanish allows the use of manner verbs with locative (*Ella baila en la cocina* ‘She dances in the kitchen’) and atelic path-phrases (*Ella baila a lo largo del río* ‘She dances along the river’), and also with telic path-phrases which predicate the action of having reached an approximate point (*Ella baila hasta la cocina* ‘She dances towards the kitchen’). Conversely, it is in general not possible to use manner verbs with telic path-phrases which predicate that a boundary is crossed (**Ella baila a la cocina* ‘She dances (in)to the kitchen’).

2.2. Path satellites in German

Talmy (2000:102) defines satellites as “[...] the grammatical category of any constituent other than a noun-phrase or prepositional-phrase that is in a sister relation to the verb-root”. In German, several elements can be considered “satellites” in Talmy’s terms, namely directional adverbs (3)-(4), verbal particles (5)-(6) and verbal prefixes (7)-(8):⁴

² In both languages, the Ground is often codified in a prepositional phrase, e.g. *La niña entra corriendo en la habitación* – *Das Mädchen rennt ins Zimmer hinein* ‘The girl runs into the room’.

³ For diatopic differences in the encoding of Motion Events in Spanish and German, see Ibarretxe-Antuñano and Hijazo-Gascón (2012), and Berthele (2004, 2006, 2013, 2014), respectively.

⁴ Verbal prefixes and verbal particles only occur with a verb and hardly ever independently. Whereas verbal prefixes are inseparable from the verb stem, particles can be detached in certain syntactic contexts. Elements such as *über* ‘over’ in (7) and *durch* ‘through’, *hinter* ‘behind’, *unter* ‘down’, *um* ‘around’ and *wider* ‘against’ can function as both prefixes and particles.

- (3) *Sie rennt **herein***
 she runs towards.the.speaker-in
 ‘She runs in’
- (4) *Er steigt die Treppe **hinauf***
 he climbs the.ACC stair away.from.the.speaker-up
 ‘He climbs up the stairs’
- (5) *Die Spatzen sind **ausgeflogen***
 the sparrows are out-flown
 ‘The sparrows flew away’
- (6) *Das Schiff geht **unter***
 the ship goes down
 ‘The ship is sinking’
- (7) *Wir **überqueren** die Straße*
 we over-cross the.ACC street
 ‘We cross the street’
- (8) *Wir haben den Berg **erstiegen***
 we have the.ACC mountain to.the.highest.point-climbed
 ‘We ascended the mountain’

However, verbal prefixes, verbal particles and directional adverbs do not contain the same amount of spatial information, and their use is subject to different restrictions. Instead, they must all be regarded as the result of a diachronic evolution, in the course of which the satellite function was gradually fulfilled by different elements (cf. Harnish 1982, Hinderling 1982). Thus, Present-day German verbal prefixes functioned as satellites in Proto-Germanic, and at a later period their spatial component underwent semantic bleaching. Present-day German verbal particles came to be used as satellites in the course of the Old High German period (c. 750-1050), but their spatial component was also semantically bleached, and the modern directional adverbs developed their satellite function during the Middle High German (c. 1050-1350) and the Early New High German (c. 1350-1650) periods. For an in-depth explanation of this evolution, see Harnisch (1982) and Hinderling (1982).

Nowadays, prefix-verb compounds constitute lexicalized items, since the original spatial component of the prefix is not often clear or the prefix codifies different information (e.g. in *ersteigen* ‘to climb to the highest point’ or *erklimmen* ‘to climb with some difficulties’, the prefix *er-* emphasizes that the action denoted by the verb has been completed). Particle-verb compounds are also lexicalized, but unlike prefix-verb compounds, their spatial component can still be recognized in many cases (e.g. *aufgehen* ‘to rise’, *untergehen* ‘to sink’, ‘to go down’). Finally, the spatial component of directional adverbs is most easily discernible, thus playing the most important role in the expression of Path in Present-day

German. In some cases, however, they also form lexicalized units with some verbs, as in the case of *heranwachsen* ‘to grow up’, *sich in jemanden hineindenken* ‘to put oneself in someone’s situation’, and *sich herausputzen* ‘to spruce oneself up’, in which the spatial component can still be partly recognized.

The morphological classification of the directional adverbs exemplified in (2)-(4) above remains a controversial issue. They are very often considered double verbal particles (Harnisch 1982, Hinderling 1982, McIntyre 2001), given that they are composed of two adverbs and form an orthographic unit with the verb. This classification may be accurate for lexicalized units, but not for directional adverbs, since some of their features render their classification as double verbal particles rather problematic, in particular due to their:

- (i) Additive meaning. The meaning of *hinunterrennen* (away.from.the.speaker-down-run) ‘to run down’, *heraus hüpfen* (towards.the.speaker-out-hop) ‘to hop out’ or *hineinspringen* (away.from.the.speaker-in-jump) ‘to jump into’, for example, results from the combination of the meanings of the directional adverb and the verb (cf. Fleischer and Barz 1992: 301)
- (ii) Almost unrestricted possibility of being combined with motion verbs (Fleischer and Barz 1992: 301, Hinderling 1982: 83); for example, *herunterrennen* ‘to run down’, *herunterfallen* ‘to fall down’, *herunterklettern* ‘to climb down’, *herunterspringen* ‘to jump down’, etc.
- (iii) Use as a pro-form instead of a prepositional phrase (e.g. *Er rennt hinaus* ‘he runs out’ for *Er rennt aus dem Zimmer* ‘he runs out of the room’ (cf. Krause 1998: 207-208)
- (iv) Optionality when they occur together with a prepositional phrase, in those cases in which the preposition of the prepositional phrase corresponds to the second element of the directional adverb (e.g. *Er rennt aus dem Zimmer (hinaus)* ‘he runs out of the room’, cf. (9)-(11)) (cf. Krause 1998: 200-201)

Moreover, they can be used without a motion verb when occurring in combination with a modal verb or the auxiliary *sein* (e.g. *Sie müssen hinaus* (you must away.from.the.speaker-out) ‘You have to go out’, *Er ist schon hinunter* (he is already away.from.the.speaker-down) ‘He has already gone down’). In imperative contexts they can even occur without any verbal element (e.g. *Hinaus mit Dir!* (away.from.the.speaker-out with you.DAT) ‘Get out of here’, *Schnell, hinauf!* (quickly, away.from.the.speaker-up) ‘Hurry up, go upstairs’). In what follows, we will refer to the directional adverbs with *hin-/her-* as “satellites with *hin-/her-*”, the most neutral label in our opinion, given that the morphological

classification of the directional adverbs with *hin-/her-* and their designation remains a controversial issue.

In addition to the use of the aforementioned satellites, it is also possible to codify the Path information in a prepositional phrase. As pointed out in (iv) above, when the preposition of the prepositional phrase corresponds to the second element of the satellite with *hin-/her-*, the use of the satellite is optional:

- (9) *Sie rennt aus dem Zimmer (heraus)*
 she runs out the.DAT room (towards.the.speaker-out)
 ‘She runs out of the room’
- (10) *Er geht in das Haus (hinein)*
 he goes in the.ACC house (away.from.the.speaker-in)
 ‘He goes into the house’
- (11) *Er springt auf den Tisch (hinauf)*
 he jumps on the.ACC table (away.from.the.speaker-up)
 ‘He jumps (up) onto the table’

These constructions, usually known as “pleonastische Direktionale” (Olsen 1996), have been widely discussed in the literature. Whether the preposition and the satellite with *hin-/her-* codify different information, just like the “komplementäre Direktionale”,⁵ or whether the satellite with *hin-/her-* only has an emphatic function in such cases, remains subject to debate. A definite answer would be far beyond the scope of the present paper (cf. Olsen (1996), McIntyre (2001) and Berthele (2004) for an in-depth discussion).

2.2.1. Satellites with *hin-* and *her-*: Encoding the speaker’s perspective

The possibility to encode the speaker’s perspective in satellites is a typological feature of German, not present in any other Germanic language. *Hin-* codifies motion away from the speaker, while *her-* codifies motion towards the speaker instead. Consider the following examples:

- (12) *Die Frau rennt den Hügel hinunter*
 the woman runs the.ACC hill away.from.the.speaker-down
 ‘The woman runs down the hill’

⁵ In complementary constructions, such as *Er geht unter der Brücke hindurch* (he goes under the.DAT bridge through) ‘He crosses under the bridge’, or *Sie kriecht unter dem Bett hervor* (she crawls under the.DAT bed forth) ‘She crawls out from under the bed’, the preposition and the satellite encode different types of spatial information.

- (13) *Die Frau rennt den Hügel herunter*
the woman runs the.ACC hill towards.the.speaker-down
'The woman runs down the hill'
- (14) *Das Kind rennt in das Zimmer hinein*
the child runs in the.ACC room away.from.the.speaker-in
'The child runs into the room'
- (15) *Das Kind rennt in das Zimmer herein*
the child runs in the.ACC room towards.the.speaker-in
'The child runs into the room'

In (12) the speaker is situated on a hill, higher than the Figure, whereas in (13) the speaker is located below. In (15) the speaker is in the room, while in (14) he is situated outside. The encoding of the speaker's perspective is possible with the following set of satellites: *hinab/herab* 'down(wards)',⁶ *hinauf/herauf* 'up(wards)', *hinaus/heraus* 'out', *hinein/herein* 'in(to)', *hinüber/herüber* 'over', and *hinunter/herunter* 'down(wards)'.⁷

However, the encoding of the speaker's perspective in satellites is not systematically realized. In Present-day German, some satellites such as *hindurch* 'through', *herum* 'around', *hervor* 'forth', *herbei* 'to' and *hernieder* 'down(wards)' only have one form, with either *hin-* or *her-*, respectively,⁸ and the pair *hinan* 'up(wards)' and *heran* 'towards', 'right up to' does not share the same spatial meaning. As a consequence, the speaker's perspective can no longer be codified. Other satellites like *hoch* 'up(wards)', *empor* 'up(wards)'⁹ and *entlang* 'along' never occurred with *hin-* and *her-* in the history of the language. Furthermore, in spoken German or in rather informal written contexts the speaker's perspective is neutralized. This owes to the preference for shortened *r*-forms of satellites

⁶ *Hinab/herab* and *hinunter/herunter* both mean 'down(wards)'. In Standard German *hinab/herab* are considered to belong to a formal register. In other varieties of German, however, they are the normal, stylistically unmarked forms. *Hernieder* is only used in highly formal written contexts.

⁷ *Hinzu/herzu* 'to' are rarely used with a spatial meaning and are characteristic of formal registers. For an in-depth description of the semantics of *hin(-)* and *her(-)*, see Latzel (1979) and Jokinen (2006).

⁸ In some diatopic varieties of German the encoding of the speaker's perspective is more systematic (cf. Eichinger (1980), Glaser (1992: 210-211), and Jokinen (2006: 107-108)).

⁹ *Hinauf, herauf, hoch, hinan* and *empor* mean 'up(wards)'. *Hinan* and *empor* are characteristic of a formal and elevated style; *hoch*, on the contrary, is typical of spoken language.

whose second constituent starts with a vowel¹⁰ (*rauf*, *raus*, *rüber*, *runter* etc.). Finally, it should be remarked that even in the case of the full forms with *hin-* and *her-*, some native speakers do no longer draw a distinction in terms of the speaker's perspective (Herberg 1968, Latzel 1979, Girth and Michel 2008, Behrens 2009).

2.2.1.1 Equivalents of *hin-* and *her-* in Spanish

Hin- and *her-* lack concrete equivalents in Spanish, yet this language also has elements that codify the speaker's perspective. In some cases, the semantics of *hin-* and *her-* can be expressed by the deictic adverbs *allí* 'there' and *aquí* 'here', and by the deictic verbs *ir* 'go' and *venir* 'come', or *traer* 'bring' and *llevar* 'take' (Krause and Doval 2011: 169-170). Nevertheless, the meaning of *hin-* and *her-* generally remains uncoded in Spanish, and instead it has to be contextually inferred, if this is possible at all (cf. Wotjak 1997: 320, Doval and Lübke 2014: 428).

3. Motion in German as a Foreign Language

The typological differences in regard to the encoding of motion events in both languages entail three difficulties for Spanish-speaking learners of German. First of all, learners have to understand that the Path information, which in Spanish is usually encoded in a verb, must instead be expressed in an external element, namely a satellite (e.g. *hinunter/herunter/runter* 'down' for *bajar* 'descend', *hinauf/herauf/rauf* 'up' for *subir* 'ascend', etc.). Secondly, learners must recognize that some German satellites allow the possibility of encoding the speaker's perspective, that this perspective is not codified in all satellites, and that it can be neutralized in the so-called *r*-form. A third potential difficulty, frequently mentioned in the literature on the expression of motion events in L2s, is that most motion events require Manner to be specified in the verb, which would imply learning a larger repertoire of motion verbs and the use of manner verbs in boundary-crossing contexts. However, Berthele (2006, 2007, 2013) has shown that the encoding of Manner in German is not obligatory, and that, in fact, in different German varieties satellites are combined with general motion verbs (e.g. *gehen* 'to go' or *kommen* 'to come'), modal verbs or the

¹⁰ Those satellites with *hin-* or *her-* whose second constituent begins with a consonant do not have short forms with *r-*. Instead, the first element *hin-* or *her-* is simply omitted (e.g. *(hin)durch* or *(her)vor*). However, in these cases it is not the omission of *hin-* or *her-* which hinders the encoding of the speaker's perspective, since *hindurch* and *hervor*, as seen above, are already neutralized forms due to the lack of a corresponding equivalent with *her-* and *hin-*, respectively.

auxiliary *sein* 'to be'. Therefore, since it is possible not to use a manner verb in German, this additional difficulty for learners of German should be carefully examined. However, given that the focus of this paper is the encoding of Path, we will not be concerned here with Manner or how it is codified.

When acquiring satellite languages, native speakers of verb-framed languages typically encounter difficulties both to encode the Path component and to use manner verbs, as described in the literature for Japanese and German (Bauer 2010, 2012), French and German (Scheirs 2014), and for Spanish and Danish (Cadierno 2010). The combination Spanish-German, however, has not yet been examined. The use of satellites with *hin-/her-/r-* has only been mentioned as a difficulty for certain learner groups with different L1s (cf. 4.3.2), but has heretofore never been the subject of scholarly debate. Furthermore, the analysis of several textbooks for German as a Foreign Language used at Spanish universities (cf. Liste-Lamas 2015) has revealed that the satellites with *hin-/her/r-*, if treated at all, are examined rather superficially.

4. The present study

4.1. Participants

A total of 53 students of Philology at the University of Santiago de Compostela (Spain) participated in this preliminary study. At the time of data collection, the participants attended different German language modules. The A2-group, with 32 participants, attended a course designed to achieve an A2.2 level; the B1-group, with 14 students, was meant to obtain a B2.1 level, and a third group consisted of 7 students who had already passed the eight obligatory German language courses to hold a degree in Modern Languages, and whose language skills were therefore assessed between B2.2 and C1.1 of the Common European Framework of Reference (CEFR). The linguistic competence of the participants was, however, not specifically tested, and is based on the courses attended and on the judgment of the lecturers in charge of these modules. The results of the participants with a migratory background in German-speaking countries were not considered. Also, the data from the students with a greater command of German than the one which they were expected to have in that group were discarded. Finally, 6 native speakers served as a control group. We of course acknowledge the limitations of the methodology adopted in this study, in particular the differences in the group sizes and the lack of appropriate evidence for the participants' actual

language competence. The present study is therefore preliminary, yet we provide some general comments on future research at the end of the paper.

4.2. Stimuli

The participants were asked to describe 17 drawings in German. These drawings, based on Hess (2007), represent simple motion events potentially involving satellites with *hin-/her-/r-*.

Motion events 4 and 11 are the only ones in which the use of a satellite as such is mandatory, and the satellites with *hin-/her-/r-* are the most productive pattern. The alternative satellites *abwärts* ‘downwards’, *treppab* ‘down the stairs’ (only possible in 4), and *bergab* ‘downhill’ (only possible in 11) can only be regarded as marginal, low-frequency options. Motion events 4 and 11 will be called “*hin-/her-/r-* likely motion events”. In the other cases, the satellites with *hin-/her-/r-* are optional (e.g. *aus dem Haus* instead of *aus dem Haus heraus*), interchangeable with another satellite (e.g. *die Treppe hoch* instead of *die Treppe hinauf*), or with another verbal construction (*sich an die Wand annähern/sich der Wand (an)nähern* instead of *an die Wand heran*).

#	Stimuli description
1	<i>in das Haus (hinein/herein/rein)</i> in the.ACC house (away.from.the.speaker-in/towards.the.speaker-in/neutralized.form-in) ‘into the house’
2	<i>die Treppe hinauf/herauf/rauf</i> the.ACC stair away.from.the.speaker-up/towards.the.speaker-up/neutralized.form-up ‘up the stairs’, ‘upstairs’
3	<i>in die Vase (hinein/rein)</i> in the.ACC vase (away.from.the.speaker-in/neutralized.form-in) ‘into the vase’
4	<i>die Treppe hinunter/herunter/runter; die Treppe hinab/herab</i> the.ACC stair away.from.the.speaker-down/towards.the.speaker-down/neutralized.form-down ‘down the stairs’, ‘downstairs’
5	<i>aus dem Haus (hinaus/heraus/raus)</i> out the.DAT house (away.from.the.speaker-out/towards.the.speaker-out/neutralized.form-out) ‘out of the house’
6	<i>den Hügel hinauf/herauf/rauf</i> the.ACC hill away.from.the.speaker-up/towards.the.speaker-up/neutralized.form-up ‘up the hill’

7	<i>um den Baum (herum/rum)</i> around the.ACC tree (neutralized.form(<towards.the.speaker)- around/short.form-around) 'around the tree'
8	<i>auf den Baum (hinauf/herauf/rauf)</i> on the.ACC tree (away.from.the.speaker-up/towards.the.speaker- up/neutralized.form-up) 'onto the tree'
9	<i>vom Baum (hinunter/herunter/runter), vom Baum (hinab/herab)</i> from.ART.DEF.DAT tree (away.from.the.speaker- down/towards.the.speaker-down/neutralized.form-down) 'down from the tree'
10	<i>aus dem Loch (heraus/raus)</i> out the.DAT hole (towards.the.speaker-out/neutralized.form-out) 'out of the hole'
11	<i>den Hügel hinunter/herunter/runter, den Hügel hinab/herab</i> the hill.ACC away.from.the.speaker-down/towards.the.speaker- down/neutralized.form-down 'down the hill'
12	<i>ins Wasser (hinein/herein/rein)</i> in.ART.DEF.ACC water (away.from.the.speaker-in/towards.the.speaker- in/neutralized.form-in) 'into the water'
13	<i>aus dem Wasser (hinaus/heraus/raus)</i> out the.DAT water (away.from.the.speaker-out/towards.the.speaker- out/neutralized.form-out) 'out of the water'
14	<i>durch den Wald ((hin)durch)</i> through the.ACC forest (neutralized.form(<away.from.the.speaker)- through/short.form-through) 'through the forest'
15	<i>über das Loch (hinüber/herüber/rüber)</i> over the.ACC hole (away.from.the.speaker-over/towards.the.speaker- over/neutralized.form-over) 'over the hole'
16	<i>an die Wand (heran/ran)</i> to the.ACC wall (neutralized.form(<towards.the.speaker)-to/short.form- to) 'towards/right up to the wall'
17	<i>hinter der Wand (her)vor</i> behind the.DAT wall neutralized.form(<towards.the.speaker)- forth/short.form- forth 'from behind the wall'

Table 1-1. Stimuli

4.3. Results

Table 1-2 below shows the relative frequency of the use of satellites with *hin-/her-/r-* in general, and in *hin-/her-/r-* likely contexts. Moreover, the relative frequency of dynamic descriptions is given:¹¹

Satellites	A2	B1	B2	NAT
<i>hin-/her-/r-</i>	0.02	0.02	0.33	0.43
<i>hin-/her-/r-</i> in likely contexts	0.06	0.04	0.9	1
dynamic descriptions	0.54	0.65	0.95	1

Table 1-2. Relative frequencies of *hin-/her-/r-* and of the dynamic descriptions

4.3.1. Use of satellites with *hin-/her-/r-*

In the A2 and the B1 group, the relative frequency of the use of satellites with *hin-/her-/r-* remains very low.

In the A2 group (total of nine occurrences, four of which in likely contexts), the use of satellites with *hin-/her-/r-* is neither systematic nor grammatically correct. We have only attested one example which is both syntactically and semantically correct:

- (16) *Er geht rein* [A2, 30, 1]¹²
 he goes neutralized.form-in
 ‘He goes in’

In the verbless constructions (17)-(19), two participants used the satellite *hinunter*, which suggests a transfer of a Spanish pattern, in that they seem to have identified the satellite with the Spanish verb *bajar* ‘descend’:

- (17) **Sie die Treppe hinunter* [A2, 18, 4]
 she the.ACC stair away.from.the.speaker-down

¹¹ Undescribed stimuli and static descriptions were not taken into consideration when computing relative frequencies of dynamic descriptions.

¹² The square brackets contain the participant’s group, his/her identification and the number of the stimulus described. The asterisk sign (*) indicates ungrammatical sentences, the number sign (#) pragmatically incorrect sentences, and the asterisk sign within brackets ((*)) marks correct sentences with spelling mistakes. All the examples are glossed, but we have only translated those instances which are grammatically correct.

- (18) **Er hinunter die Treppen* [A2, 30, 4]
 he away.from.the.speaker-down the.ACC stairs
- (19) **Er hinunter mit der Fahrrad die Berge* [A2, 30, 11]
 he away.from.the.speaker-down with the.DAT? bike the.ACC mountains

The use of *herum* also indicates a transfer from the Spanish complex preposition *alrededor de* ‘around’:

- (20) **Er laufet herum der Baum* [A2, 5, 7]
 he walks neutralized.form(<towards.the.speaker)-around the.NOM tree
- (21) **Sie laufet herum die Wand* [A2, 5, 17]
 she walks neutralized.form(<towards.the.speaker)-around the.ACC wall

The B1 group (a total of four occurrences, one of them in a likely context) shows fewer cases of satellites with *hin-/her-/r-* than the A2 group. On the whole, however, there are not as many grammatical mistakes as in the A2 group (cf. (22) and (23)). Nonetheless, some problems remain. In (24), for instance, a rather strange perspective is adopted,¹³ whereas (25) shows the incompatibility of a first-person subject and the perspective adopted (in this case a movement away from the speaker), in addition to the use of an inappropriate satellite (*herüber* ‘over’ instead of *herunter* ‘down’):

- (22) *Ich gehe die Treppe hinauf* [B1, 2, 2]
 I go the.ACC stair away.from.the.speaker-up
 ‘I go up the stairs’
- (23) *Ich gehe hinaus* [B1, 2, 5]
 I go away.from.the.speaker-out
 ‘I go out’
- (24) *Er kommt ins Haus herein* [B1, 13, 1]
 he comes in.ART.DEF.ACC house towards.the.speaker-in
 ‘He comes into the house’
- (25) **Ich gehe die Treppe herüber* [B1, 2, 4]
 I go the.ACC stair towards.the.speaker-over

In the B2 group (39 occurrences, 12 of them in likely contexts) the relative frequency of the satellites with *hin-/her-/r-* is considerably higher and their use is also more accurate:

- (26) *Er geht hinein* [B2, 3, 1]
 he goes away.from.the.speaker-in
 ‘He goes in’

¹³ The stimulus shows a Figure going into a house, rather than coming into a house.

- (27) *Er geht die Treppe hinab* [B2, 5, 4]
 he goes the.ACC stair away.from.the.speaker-down
 ‘He goes down the stairs’
- (28) *Er geht um den Baum herum* [B2, 4, 7]
 he goes around the.ACC tree neutralized.form(<towards.the.speaker)-around
 ‘He walks around the tree’
- (29) *Er geht ins Wasser hinein* [B2, 7, 12]
 he goes in the.ART.DEF.ACC water away.from.the.speaker-in
 ‘He goes into the water’

Nevertheless, some problems can still be observed. Thus, we find cases with inappropriate (30) (*heraus* ‘out’ instead of *hinunter*, *herunter* or *runter* ‘down’) or ungrammatical satellites (31), or realizations of satellites without the corresponding obligatory preposition for the expression of the Ground (32). Examples (33) and (34) illustrate the use of pragmatically wrong combinations of a satellite and a prepositional phrase for the expression of the Ground. For instance, *auf die Treppe heraufgehen* and *auf die Treppe hinuntergehen* indicate an upward and a downward movement, respectively, having the stairs as a goal, and do not mean ‘to go up/down the stairs’, but rather ‘to step up/down onto the stairs’.

- (30) **Er steigt die Treppe heraus* [B2, 2, 4]
 he climbs the.ACC stair towards.the.speaker-out
- (31) **Er steigt hinunten* [B2, 7, 11]
 he climbs away.from.the.speaker-bottom
- (32) **Er läuft den Baum herum* [B2, 5, 7]
 he walks the.ACC tree neutralized.form(<towards.the.speaker)-around
- (33) #*Er geht auf die Treppe herauf* [B2, 1, 2]
 he goes on the.ACC stair towards.the.speaker-up
 ‘He steps up onto the stairs’
- (34) #*Er geht auf die Treppe hinunter* [B2, 1, 4]
 he goes on the.ACC stair away.from.the.speaker-down
 ‘He steps down onto the stairs’

4.3.2. Other encoding techniques

In the light of the data, the question arises as to how participants encode Path, if they do not use satellites with *hin-/her-/r-*. Table 3 summarizes the relative frequencies of the three most common encoding techniques, other than satellites with *hin-/her-/r-*, namely prepositional phrases, path verbs and incorrect simple satellites with motion verbs.

Other encoding techniques	A2	B1	B2	NAT
Prepositional phrases	0.27	0.3	0.34	0.39
Path verbs	0.08	0.09	0.08	0.09
Incorrect simple satellites	0.05	0.07	0.11	0

Table 1-3. Other encoding techniques

The participants' use of prepositional phrases is often incorrect (yet cf. (35)). In addition to case-marking problems, present at all levels, we observe difficulties in the use of prepositional phrases for the expression of Path, which is unsurprising, given that the German prepositional system is more complex than the Spanish system. This is illustrated in (36) and (37), which show a pragmatically incorrect use of *nach* and *zu* 'to(wards)' as general, directive prepositions, and in (38), which exemplifies the use of a prepositional phrase instead of a satellite, which is also pragmatically incorrect in this context (cf. (33)):

- (35) *Er geht aus dem Haus* [B1, 9, 5]
 he goes out the.DAT house
 'He goes out of the house'
- (36) *#Sie geht nach Hause* [A2, 18, 1]
 she goes to home
 'She goes home'
- (37) *#Er geht zum Haus* [A1, 14, 1]
 he goes to.ART.DEF.DAT house
 'He goes to the house'
- (38) *#Er steigt auf die Treppe* [A2, 1, 2]
 he climbs on the.ACC stair
 'He steps up onto the stairs'

The results of the participants additionally reveal structures in which Path was only codified in the verb, which were included among the path verbs:

- (39) (*) *Er verlässt das Haus* [B1, 1, 5]
 he leaves the.ACC house
 'He leaves the house'
- (40) *Er fällt vom Baum* [B2, 4, 9]
 he falls from.ART.DEF.DAT tree
 'He falls from the tree'

The use of path verbs is not always felicitous either. Example (41), for instance, lacks a satellite, but does contain the verb *steigen* 'climb', 'rise',