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The Dustman: A Longitudinal Case Study on the Acquisition of Open Path in Advanced Learners of English

El Barrendero: un estudio longitudinal sobre la adquisición del componente semántico de camino en estudiantes avanzados de inglés

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This case study follows seven learners of English as a Second Language for 17 years and looks into the acquisition of motion lexicalization patterns in English, specifically the path component as explained by Talmy (2000) and Slobin (1987, 2004, 2017). The data suggest that advanced Spanish learners of English benefitting from both instructed and naturalistic acquisition show an unawareness of differences in the conceptualization of motion in the L2 (Jarvis & Pavlenko 2008). And as a consequence, learners may not develop common L2 lexicalization patterns of motion - reflected in their interlanguage - but can also curtail further advancement as fossilization may set in prematurely. This study posits that awareness of conceptual differences between languages can lead to more progress and proficiency in late advanced learners.

Keywords: S-framed/V-framed languages; event conflation, instructed acquisition of lexicalization patterns; cross-boundary constraint; SLA; conceptual transfer.

Este estudio sigue el desarrollo de siete estudiantes de inglés como segunda lengua durante 17 años y analiza si se pueden adquirir patrones de lexicalización específicos a la L2 si estos no se instruyen específicamente. Concretamente se centra en el componente semántico de camino (*path*) tal como lo explican Talmy (2000) y Slobin (1987, 2004, 2017). Se arguye que los estudiantes de inglés avanzado de lenguas de marco verbal que se han beneficiado de una adquisición tanto instruida como natural de la L2 en general desconocen que el inglés conceptualiza el movimiento de forma distinta (Jarvis & Pavlenko 2008) y, por tanto, tienden a transferir patrones léxicos de su lengua a la L2. El estudio propone que el conocimiento de estas diferencias conceptuales puede evitar la fosilización y llevar a un mayor progreso en estudiantes muy avanzados.

Palabras clave: lenguas de marco verbal/satelital; fusión de eventos; adquisición de patrones de lexicalización a través de la instrucción; restricción del cruce de límites; ASL; transferencia conceptual.

1. INTRODUCTION

This study is an ESL practitioner’s look into the acquisition and learnability of motion lexicalization patterns in English, in other words, how the concept of motion is mapped to surface morphosyntactic structures by advanced Spanish learners of English. It focuses specifically on the open path component—an event where a figure moves from one point to a different point such as *Mathew jumps out of bed and into the bathroom*—as described by Talmy (1991, 2000) and Slobin (1987, 2004, 2017), and justifies the phenomenon as an instance of conceptual transfer: “language-mediated conceptual categories of one language influencing verbal performance in another” (Jarvis & Pavlenko, 2008: 115).

Though a wealth of research into conflated manner-of-motion exists, few studies are authentically longitudinal or have the ESL classroom as the focal point. This study contributes to bridging the gap between academic and classroom research by presenting the results of a seventeen-year follow-up on 7 learners, whose initial levels ranged from B1.1 to C1.1 according to the Common European Framework of Reference for Languages (CEFR).

Spanish learners of advanced English who have benefited from both instructed and naturalistic acquisition might fail to notice that native speakers of the L2 differ in how they conceptualize motion and, therefore, may not perceive that the lexicalization of these structures can diverge from those of the L1. Consequently, learners may not develop L2 lexicalization patterns, which can not only lead to the omission of common forms when describing motion but also to the fossilization of interlanguage features thus curtailing further advancement (Selinker, 1972). For instance, an advanced Spanish bilingual might say “Mike crossed the street and entered the supermarket,” using two verbs to describe each stretch of the action, whereas a native speaker may say “Mike walked across the street and into the supermarket,” thus employing only one manner verb and 2 adverbs to describe each subset of the verb. In sum, bringing awareness of conceptual differences between languages can promote more progress and proficiency in more advanced learners.

This semi-experimental, longitudinal, case study, called *The Dustman* because of the story used to elicit the corpus, has the following main research goals:

- 1) To show that advanced instructed learners do not naturally acquire conflated manner-of-motion in writing, probably due to conceptual factors informed by the L1, and because instruction leaves conceptual differences to be inferred.
- 2) To argue that immersion courses, study abroad courses (SA), and/or living in English-speaking countries for prolonged periods do not necessarily produce the natural acquisition of motion lexicalization patterns.
- 3) To defend that conflated manner-of-motion should be explicitly instructed via different methodological approaches such as focus-on-form.

With the above goals in mind, these are the hypotheses to be considered:

H1. In the years the study unfolds, this group of L2 learners will produce increasingly longer texts, which will show a consolidation of L1 rhetorical style directly transferred to the L2. Learners will focus more on description, scenery, and landmarks, than on translational motion.

H2. Learners will exhibit lower diversity and frequency of verbs of motion in comparison to the control group.

H3. The expression of manner-of-motion specifically will improve as a result of life and academic experience in the language, but these will remain underused in comparison to the control group.

H4. The elaboration of open path: instances of satellization, plus-ground and minus-ground occurrence, will not exhibit clear changes. There will be few - if any - examples of multiple-segmented path.

2. THEORETICAL FRAMEWORK

Talmy's influential typological research focuses on how languages conceptualize motion events within a sentence (1975, 2000, 2009, 2018). His main thesis, called "Motion-Framing Typology" (2005), posits that languages display profound differences in attention allocation when describing motion and spatial relationships and how they surface lexically in a construction. The main elements of this event are described in Figure 1 (adapted from Ungerer & Schmid, 1996: 238):

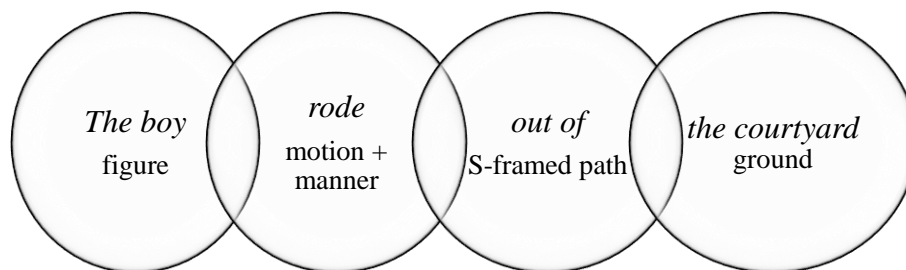


Figure 1: Elements of a motion event

Paraphrasing Talmy (2000), if you keep path constant, we can observe two kinds of languages: those that express open path—the movement of a figure from point A to point B—through the verb: verb-framed languages; and those which use adverbs or adpositions to frame path: satellite-framed languages, (henceforth V-framed and S-framed languages).

A way to illustrate this is by back translation of examples. Canonical V-framed languages such as Spanish tend to open only the end window (focus) of attention in describing path, for example, in (1) a person knows the subject ends up in the park, but all possible intermediate stops have been omitted. However, the translation (2) can subsume three ground elements *the office*, *Main St.*, and *the park* under one verb. Secondly, manner is generally not depicted, but when displayed, it requires a gerund or another clause i.e., co-event. Case in point is example (3) where *de puntillas* informs how the action unfolded and the verb is neutral *entrar*, while S-framed languages (4) may use a manner verb (*tiptoe*).

- (1) Se fué al parque.
- (2) She walked out of the office through Main St. and into the park.
- (3) Entró en el cuarto de puntillas.
- (4) She tiptoed into the room.

Additionally, V-framed languages tend to elaborate the setting as in a learner's verbatim example (5) where we know the man wakes up, but also his personality and feelings as opposed to the control English rendition (6) of this event where the subject simply wakes up late. Hence, the narrating focus in S-framed languages is on the movement of the figure along a path with a tendency to disregard background description.

- (5) Every morning, he used to get up at seven o'clock in the morning trying not to wake up Teresa. Today, like every day, at quarter to eight he has to wake up. But he doesn't wake up in a bad mood, as other people would do. He feels everything he does, even the *most little* things, and he acts realizing that he is free.
- (6) Ring! Ring! Ring! Goes the alarm. Mathew jumps out of bed realizing that he is once again late for work.

However, there is growing criticism of Talmy's typology for several reasons: firstly, for being English-centric and/or satellite-framed focused (Berthele 2003, 2013; Ibarretxe-Antuñano, 2005), and secondly, for the vagueness of his definitions, for instance, on what constitutes a satellite or the role of manner in the typology (Slobin 2006, 2010; Zlatev & Yangklang 2003). Moreover, Filipović and Ibarretxe-Antuñano (2015) and Hijazo-Gascón and Ibarretxe-Antuñano (2013) argue that Talmy does not consider intra-typological variation and posit a cline of semantic component saliency to better understand how motion events are encoded in different languages; whereas Pavlenko and Volynsky (2015) claim his typology is adequate for linguistics but not for psycholinguistics on the basis that it does not mesh with recent findings into motion cognition. And finally, the fact that English is not a perfect S-framed language as the use of Latinate verbs of path (ascend, leave, etc.) is not rare.

Nevertheless, using Talmy's typology as a springboard, Slobin has produced a vast body of work on the study of cross-linguistic differences between S-framed and V-framed languages (Berman & Slobin 1987, 1994; Slobin, 1991, 1996, 2004, 2017, etc.). Berman and Slobin observed that, in children, different narrative styles developed depending on whether the language is S-framed or V-framed and established that spatial relations are conceptualized and fixed early in our childhood and are thus firmly embedded systems difficult to modify. Moreover, Slobin posits the existence of semantic constraints and processing load to explain how languages choose to elaborate manner. The choice V-language speakers unconsciously make to ignore manner reflects an avoidance of contrived, overlong sentences which may sound unnatural (Slobin, 2006). Finally, in V-framed languages when a construction presents a boundary crossing, i.e., a natural ending or change of location, another verb is usually required (Cappelle, 2018), as in *Subió la colina corriendo, cruzó el bosque y se lanzó al lago* where there are three boundaries each headed by a verb (*subir, cruzar, lanzar*) and which cannot be conflated without sounding unnatural.

Thus, stylistically, V-framed languages tend to omit the compacted constructions common to English, where the interlocutor may know with one verb where the subject went, how they went there, and how many landmarks (grounds) they passed as in "*The girl limped out of the house, to the courtyard and into the ambulance.*" In sum, in S-framed languages, the adverb can express motion and the verb manner, and a speaker may cross as many boundaries as necessary employing satellites.

This rhetorical feature does not mark a language as better or worse at motion, it just defines how this event unfolds. However, the effect on learners acquiring a contrasting language can be significant and inform their learning experience and results. In this context, conceptual transfer—understood as the use of basic conceptual features of the L1 in the L2, in

this case, the framing of motion in Spanish applied to English—is the third theoretical pillar in this study as it can explain why learners do not generally depict complex path in motion. Crosslinguistic influence at the conceptual level can lead to changes in one’s conceptual system but also to overgeneralize one’s own language representations and assume they apply universally, and learners’ interlanguage will reflect this usage and perhaps even fossilize (Selinker, 1972: 214). Therefore, a successful “process of L2 learning will thus involve a restructuring of already existing conceptual categories” (Jarvis & Pavlenko 2008: 121).

3. MATERIALS AND PROCEDURE

3.1 Background

The original 2005 *Dustman* study set out to test Spanish learners of English on their ability to narrate a short cartoon to observe whether they produced examples of satellite-framed constructions spontaneously and without instruction and, if so, at which level.

3.2 The story

The comic strip used in this study is taken from a book called *Humano se Nace* (As a Human One is Born, 1991) by the Spanish-Argentine cartoonist Joaquín Salvador Lavado “Quino” (Figure 2). It describes a day in the life of a dustman who works in an Independence Square in a big city.

It is an ideal story for this experiment due to its linearity - with a clear beginning and denouement. It describes actions any student of English learns from the beginning of their studies: getting up, having breakfast, brushing their teeth, biking to work and spending time at work. Hence, regardless of individual levels, learners can tackle the exercise with certain ease.

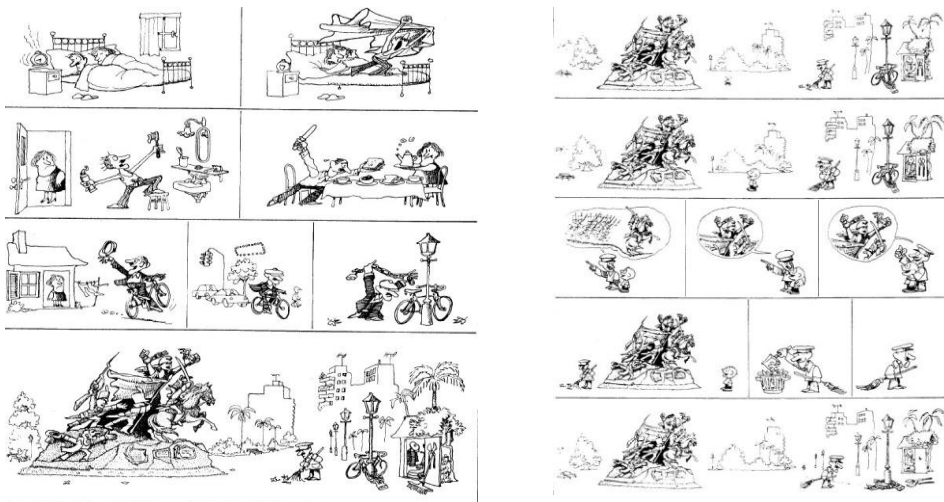


Figure 2: *The Dustman*. Cartoon by Quino (© Joaquín Salvador Lavado), 1991

Though inspired by the Frog Stories in its design (Berman & Slobin 1994), *The Dustman* is a very different story from the Frog Stories. It is shorter and less multilayered: the events pertain to only one character and mostly show his perspective. It does, however, offer

opportunities to describe path in both simple and complex trajectories though, of course, much of how it is rendered depends on what the subjects see in the story.

Moreover, *The Dustman* offers a clear methodological advantage: composed of 17 frames spread over two pages, the cartoon is relatively simple to describe in thirty minutes or less and perfectly fits the one-hour frame of a lesson.

3.3 *The learners*

3.3.1 2005

In the 2005 project, the research subjects were students from a typical neighborhood language school located in the city of Madrid, Spain (n=5 females; n=2 males; M = 14,85 age; SD = 2.73; years of English instruction M = 8.38; SD = 3.82). Despite their heterogeneity in age and initial level, they share many distinct features and common experiences, such as being native Spanish speakers, receiving EFL instruction, which began at primary school but was enriched at independent language schools; and being students, from middle school to university.

3.3.2 2017

In 2017, the 7 participants of the 2005/06 data collection were tested again (n=5 females; n=2 males; M = 27.71 age; SD = 3.59; years of English instruction M = 19.71; SD = 1.28). At this point, they had acquired high levels of proficiency: five of the six subjects in question were officially C2, and one was C1. They were all professionals, and except for one, all the subjects had left Spain and were working abroad using English.

3.3.3 2021-22

Between December 2021 and March 2022, the seven learners volunteered another round of stories (n=5 females; n=2 males; M = 32 age; SD = 3.61; years of English instruction M = 20; SD = 1.41). This time, all the subjects are well immersed in their professional lives, three live in Spain but use English for work, albeit for different purposes, and four develop their careers abroad in the UK, Switzerland and Germany, and use English daily.

3.4 *Data Collection*

To offer reliable, consistent, accurate and fair results, inter-rater reliability (IRR) was measured for 100% of the clauses chosen and reached 89%. Perfect examples of open path were *Mathew jumps out of bed* or *He frantically bikes out of the house*.

The data were collected in the classroom from an exercise consisting of looking at the comic strip for 5 minutes, understanding the gist and after the set time was over, removing the picture and asking the participants to write the story in less than 30 minutes based on recall. Learners were given the freedom to choose the point of view: first person or third person or even name the character. The same procedure was followed in 2005/06, 2017 and 2021/2022 by both learners and control group.

It is impossible to deny the possibility that these learners may capitalize on their explicit knowledge of the L2 in their writings (Jarvis & Pavlenko, 2008) and yet, the time limit was considered enough for learners to write a coherent, spontaneous story but not overly long that they would mull over more adequate vocabulary or structures.

3.5 *The Control Group in 2017*

In 2017 a control group was assembled to establish a three-way comparison between what the Spanish subjects produced in both 2005 and 2017 against a group of native speakers. The group was formed by six American subjects with negligible previous knowledge of any foreign language ($n = 4$ females; $n = 2$ males; $M = 25.16$ years of age = $27.71/SD 3.81$). Their data were collected only once.

3.6 Data analysis criteria & limitations

For this study, the following analyses were conducted:

- 1) a study on the length of each text to establish a comparison between those produced by learners and those by the control group.
- 2) an analysis of verbs of motion and their frequency.
- 3) an analysis of the expression of manner in verbs of motion
- 4) an analysis into the elaboration of path: instances of satellization, plus-ground/minus-ground occurrences, and occurrences of multi-segmental path.

In addition, to analyze the texts more systematically three core plot components have been chosen (Berman & Slobin, 1994). These are the waking-up moment, which includes what the dustman does as he wakes up and prepares for work; the commute moment, how the dustman travels to work; and finally, the child moment, when the dustman meets the boy and how the events leading to the theft of the bike are related.

Before describing these results, however, two observations must be made. Firstly, the small size of the sample (7 learners v. 6 subjects in the CG) reduces the quantitative robustness of the analyses and makes statistical confirmation of initial hypotheses more difficult. Nevertheless, seeing the descriptive statistics, the results suggest they are in the predicted direction. Secondly, the data collection in the lower-level group did not happen at the same time as in the other collections, 2 of the learners provided their samples in 2006 whilst the other 5 provided samples in 2005, which led us to choose a Scheffé as the post hoc test despite its limitations. With these considerations taken into account, we proceeded with the analyses. The variables are total number of words, the type/token ratio of motion verbs, manner of motion, plus-ground clauses, and satellites.

4. RESULTS AND FINDINGS

4.1 Number of words

Because of its rhetorical style, the theory establishes that Spanish may have a higher word count than English as it attends to more landmark and ground descriptions (Slobin, 1997; Cadierno, 2004, 2008, 2017), whereas English tends to favor more compact constructions and a focus on motion.

Table 1 shows the main descriptive analyses for all the groups analyzed. Results indicate that the word count increased over the years among the Spanish learners, 2005 ($M = 111.57$, $SD = 26.96$) 2017 ($M = 247.85$, $SD = 71.55$) and 2022 ($M = 320.42$, $SD = 57.27$); the latter two higher than the English control group ($M = 225.00$, $SD = 57.27$). This is observable in both the variance table (Table 2) and the boxplot (Figure 3). To evaluate whether the differences in means are statistically significant, a one-way ANOVA between subjects was

conducted to compare the effect of speaking a V-framed language on the number of words yielded in L2 English in The Dustman stories in comparison to the CG. There was a significant effect at the $p < .05$ level for the three conditions [$F(3, 23) = 13.98, p = .000$].

Post hoc comparisons using Scheffé indicate that the mean score for the 2005/05 collection was at a 5% significance level with respect to the other samples ($SD = 136.28, P = .004$). At 10% significance - lower than 5% but still acceptable - differences among means between 2022 and the CG are also significant as 0.076 is lower than 0.1 but higher than 0.05: thus, rejecting the null hypothesis.

Table 1: Descriptive statistics. Word count.

	Mean	Standard deviation	Standard error	95% Interval	Confidence	Minimum	Maximum
				Lower bound	Upper Bound		
2005_2006 Learners	111.5714	26.96205	10.19070	86.6357	136.5072	76.00	163.00
2017 Learners	247.8571	71.55517	27.04531	181.6796	314.0346	167.00	393.00
2022 Learners	320.4286	76.17055	28.78976	249.9826	390.8746	204.00	428.00
Control Group	225.0000	57.27827	23.38376	164.8901	285.1099	135.00	303.00
Total	226.2593	96.81886	18.63280	187.9590	264.5595	76.00	428.00

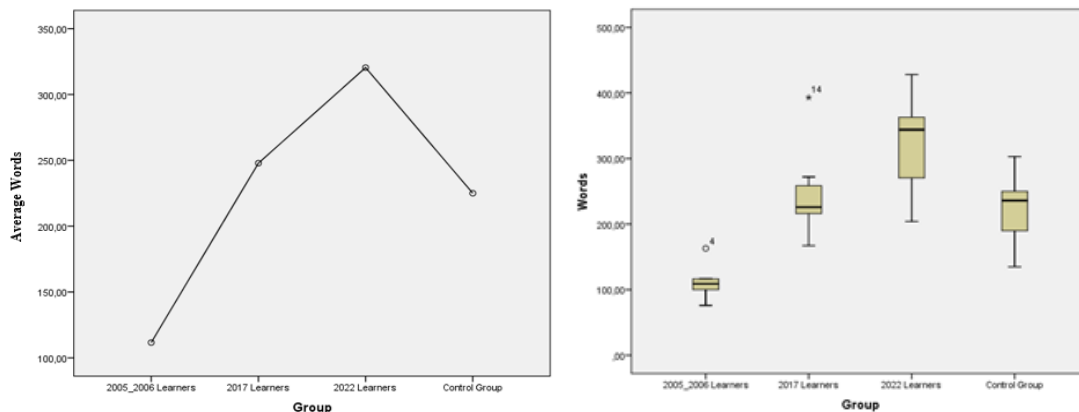


Figure 3: Word count throughout the years

4.2 Analyses of verbs of motion: token/types average

Given what is known about typological differences between Spanish and English, learners were expected to use fewer and more neutral verbs of motion than the native control group. The results of the investigation confirm this insight from both quantitative and qualitative standpoints.

Appendix 1 displays the verbs of motion each group provided in their stories, as well as their frequency in parenthesis. In the control group some verbs, such as “get”, have been repeated. The literature tends to establish a bias in favor of S-framed languages (Berthele, 2003 18), however, each use of *get* provides a different meaning and describes a distinct movement, hence the decision to include them as independent verbs.

The results suggest that learners with more years of ESL study yield a greater number and more varied sample of motion verbs. To test this observation, a variable that would incorporate both elements via a multiplication was built. The main descriptors for this variable throughout the years are shown in Table 2. It shows the average number increases in the passage from intermediate to advanced years of ESL studies, 2005/06 (M = 19.14, SD = 13.42) and 2017 (M = 52.00, SD 25.19), but then decreases in 2022 (M = 49.28, SD = 28.34)—indicating perhaps slight language attrition—and therefore the learners never reach the same level as the CG. This phenomenon can be observed both in the table as well as in the boxplot (Figure 4).

Table 2: Descriptive Statistics. Tokens v types of motion verbs

	N	Means	Standard Deviation	Standard error	95% Interval	Confidence	Min.	Max.
					Lower bound	Upper Bound		
2005_2006 Learners	7	19.14	13.42	5.07	6.72	31.55	0.00	40.00
2017 Learners	7	52.00	25.19	9.52	28.70	75.29	1400	84.00
2022 Learners	7	49.28	28.34	10.71	23.06	75.50	0.00	90.00
Control Group	6	85.00	43.00	17.55	39.86	130.13	17.00	153.00
Total	27	50.11	35.62	6.85	36.01	64.20	0.00	153.00

A one-way ANOVA between subjects was conducted to compare whether the difference in output between the learner groups and the CG is statistically significant. There was a significant difference at the $p < .05$ level for the three conditions [$F(3, 23) = 5.68, p = .005$], and thus the null hypothesis is rejected. Post hoc comparisons using the Scheffé Test uncovers that the only mean that is different at 5% significance is 2005/06 against the CG (SD = 65.85, $p = .005$).

Nevertheless, the boxplot shows—and it is possible to intuit—that differences between the 2017 and 2022 groups in comparison to the CG tend to be in the predicted direction.

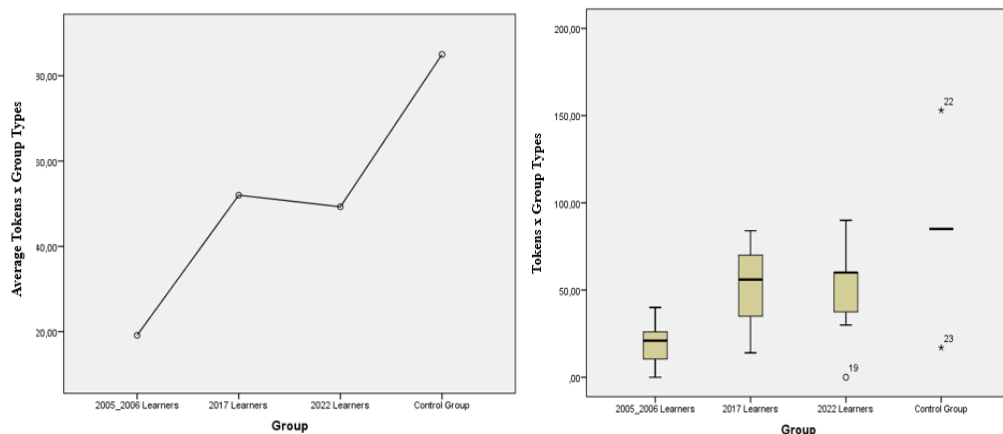


Figure 4: Description of number of tokens v. verb types

4.3 Expression of manner

Verb-framed languages do not suppress manner; however, they describe motion events differently than English. In Spanish, manner of motion tends to be used only *apropos*—and not casually as in English (Slobin, 2004: p.16). Therefore, the particularities of motion in the L2 may weigh on the successful acquisition of specific constructions in the target language. With this in mind, the expectation was for learners to produce more verbs of manner over the years and come closer to the control group results.

Table 3: Ratio of manner verbs v. total motion clauses

Descriptive Statistics								
	N	Mean	Standard deviation	Standard error	95% Confidence Interval		Min.	Max.
					Lower bound	Upper bound		
2005_2006 Learners	7	0.1943	0.27730	0.10481	-0.0622	0.4507	0.00	0.66
2017 Learners	7	0.3471	0.34529	0.13051	0.0278	0.6665	0.00	1.00
2022 Learners	7	0.3200	0.25502	0.09639	0.0841	0.5559	0.00	0.66
Control Group	6	0.5133	0.38297	0.15635	0.1114	0.9152	0.00	1.00
Total	27	0.3374	0.31817	0.06123	0.2115	0.4633	0.00	1.00

Surprisingly, in observing the ratio between manner verbs such as *bike* with respect to the total number of motion clauses, as well as the descriptive analyses in Table 3, we can again note how the mean increases from 2005/06 ($M = .194$, $SD = .277$) until 2017 ($M = .347$, $SD = .345$) only to decrease in 2022 ($M = .320$, $SD = .255$). Both the descriptive statistics table and the boxplot (Figure 5) suggest the results are in the predicted direction.

To unpack verbs of manner further, one of the core plot components mentioned in the data analysis criteria is analyzed: when the dustman goes to work. The control group used the simple manner verb *ride* in 4 instances and *bike* once, all satellized. In addition, there are 2 instances of neutral verbs (*get on* and *leave*). In general, they exhibit S-framed features with their focus on directional adverbs and extemporaneous manner information encoded in the verb, as shown in 7, 8 and 9.

- (7) Mathew rides his bike to work as quickly as he can
- (8) ...frantically bikes out of the house
- (9) As Mr. Howard rode his steed of a bicycle off to work

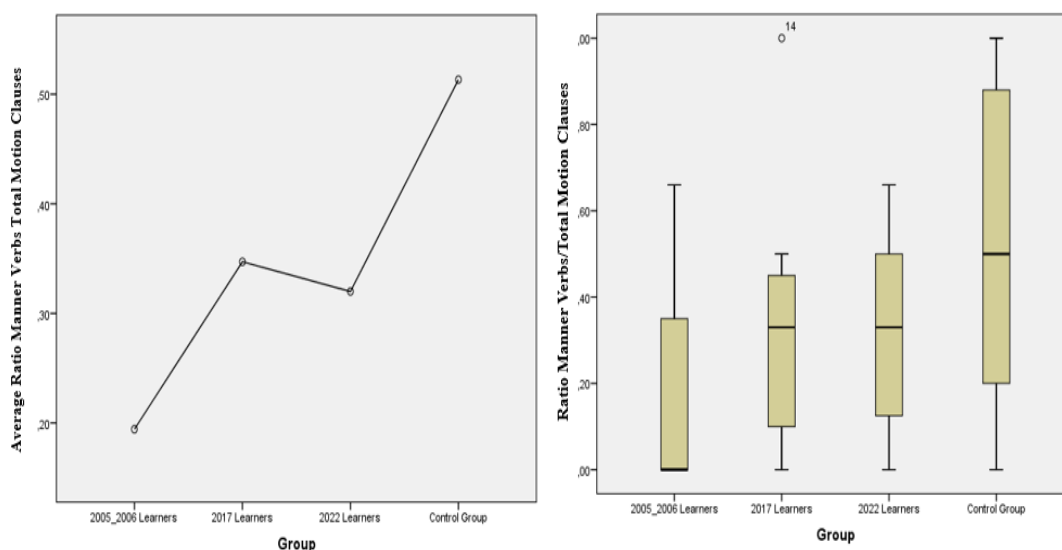


Figure 5: *Manner verbs v. Total motion clauses*

By year, the learners lexicalized this particular scene as follows. In 2005, of the 5 stories, two learners used *took (my/his) bike to go to work* and two used the neutral verb *go to* and added *bike* to express how the motion happened. One learner did not provide this plot component.

- (10) ...took his bike to go to work.
- (11) I took my bike for going to the square.
- (12) He goes to work with a bike.
- (13) He went to work by bike.

In 2006, of 23 constructions depicting this component, 4 (.17) exhibit an intriguing development in that despite being classic V-framed, the subjects included manner through another full construction regardless of the verb used in the main sentence, case in point are examples 14 and 15:

- (14) He went to work in a bike. He rode away very fast.
- (15) I took my bicycle, and I rode as fast as I could.

In 2017, two out of seven students did not provide a sample for this component. The other five used neutral verbs such as *goes* (16) where manner is added via a gerund, in addition to *heads to*, *leaves to drive*, and *cycled to work*; as well as the verb phrase *take my bike + verb* used twice—the most common clause in the description of this component (17)—and an example of overcorrection as *cycled to work* would have sufficed.

(16) The man goes to work riding a bike as if it was a horse standing up on its two rear legs.

(17) I took my bike and I cycled to work.

Finally, in 2022, one learner omitted this component, and another did not use motion but description to illustrate the scene (18), which incidentally is correctly rendered despite its typological/conceptual dissonance.

(18) Without a minute to lose, I pick up my only present last Christmas, a brand-new motorized bike which makes me save time and energy when going to work. No rain, no wind, no traffic, I can read the signals, today will be great.

The other participants yielded verbs such as *go*, *bike*, *leave*, and *rush* along with *take his bike to go to*. Nevertheless, there are two instances of conflated manner of motion in simple path in examples 19 and 20:

(19) Antonio bikes to work downtown...

(20) Then Peter rushes to his bike and waves his hat to his queen as if he were heading to the battlefield.

In sum, apart from some instances of neutral verbs: *go* and *take*, the scene was most commonly depicted by the construction *take his bike and go to work*, not common in English where a single morpheme is typically enough (Talmy 2000: 27). L1 transfer is clear in the use of this expression common in peninsular Spanish i.e., *cogió el coche y se fue a trabajar*.

4.4 *Elaboration of path: instances of plus-ground/minus-ground occurrence and satellization. Plus-ground and minus-ground clauses*

This section looks into clauses that incorporate or omit ground adjuncts. Since path is encoded in satellites, English narratives tend to add more grounds than V-framed languages. V-languages, however, encode path in the main verb which can include manner if it does not break the cross-boundary constraint, though it is generally described by bare verbs in multiple segments (Cadierno, 2004, 2010, 2017; Slobin, 1996, 1997, 2004: 9-12, 2006, 2017).

4.4.1 *Analysis of plus-ground clauses*

Table 4 shows a count of plus-ground and minus-ground clauses taken from the learner groups in contrast with the CG. The learner group produced 76 motion clauses in 23 texts and a total of 5,106 words, .64 were plus-ground and .32 were minus-ground. On the other hand, the native control group provided six texts and a total of 33 motion clauses, of which .82 were plus-ground and .18 were minus-ground. The results illustrate that proportionally the CG produced more plus-ground clauses than the learner groups.

Table 4: Number of plus-ground & minus-ground clauses in learners v. CG

Group	n° texts	words	N° of clauses	+ ground	- ground
Learners	23	5106	76	50	24
Control Group	6	1450	33	27	6

To illustrate the differences in approaches to motion the focus is on plus-ground clauses for the descriptive statistics as they reflect the path component. Table 5 displays the summary statistics for plus-ground clauses. Once again, a slight increase from 2005 (M = 1.428, SD = 1.133) until 2017 (M = 3.142, SD = 1.772) followed by a decrease in 2022 (M = 2.714, SD = 1.496) can be observed, which measured against the native CG (M = 4.166, SD = 1.940), evidence the learner group did not reach the same level of attainment. Both the descriptive table and the boxplot (Figure 6) reflect this result.

Table 5: Descriptive statistics of plus-ground clauses

	N	Mean	Standard Deviation	Standard Error	95% Confidence Interval		Min.	Max.
					Lower bound	Upper bound		
2005_2006 Learners	7	1.4286	1.13389	.42857	.3799	2.4772	0.00	3.00
2017 Learners	7	3.1429	1.77281	.67006	1.5033	4.7824	0.00	5.00
2022 Learners	7	2.7143	1.49603	.56544	1.3307	4.0979	0.00	4.00
Control Group	6	4.1667	1.94079	.79232	2.1299	6.2034	1.00	7.00
Total	27	2.8148	1.79823	.34607	2.1035	3.5262	0.00	7.00

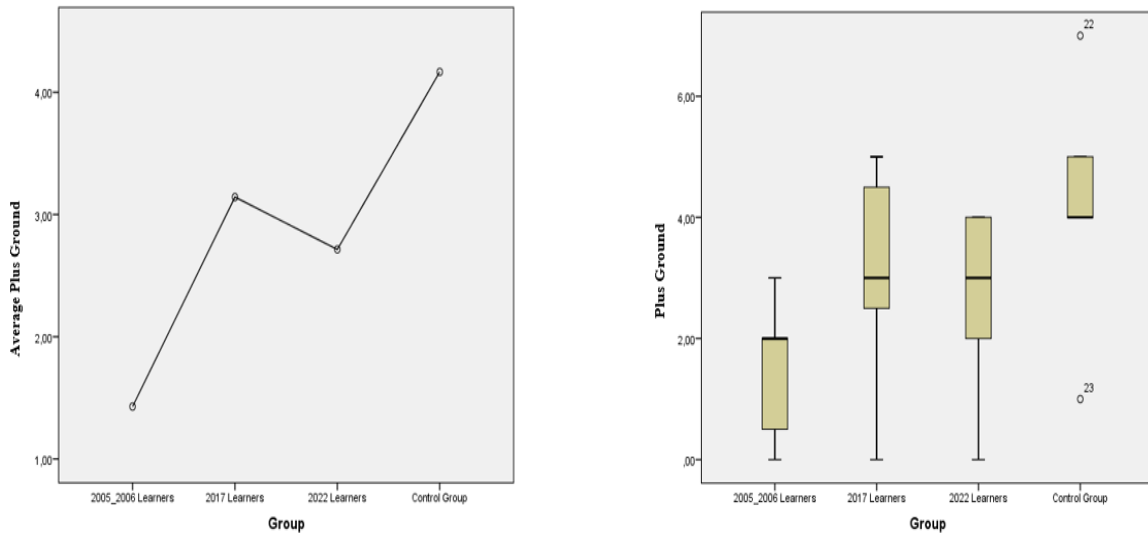


Figure 6: Plus-ground clauses from 2005/06, 2017 and 2022 v. the control group

A one-way ANOVA between subjects was conducted to examine how the learner group compared against the CG in their use of plus-ground clauses without instruction. The results point in the predicted direction but are not considered significant at the $p < .05$ level for the three conditions [$F(3, 23) = 3.28, p = .039$]. Nevertheless, as significance equals 0.039 and is lower than 0.05, the hypothesis of equality among population means is rejected. A post hoc Scheffé performed to find which mean is statistically significant at 5% shows that only the 2005/06 group is significant at 5% ($S = 2.738, p = .044$). The 2017 and 2022 groups trend in the predicted direction but cannot be confirmed statistically.

4.4.2 Analysis of Satellites

Regarding the expression of satellites, S-framed languages tend to use non-directional verbs because directionality can be informed by satellites, hence, English may use one verb plus several satellites to lexicalize segments of a path. On the other hand, Spanish (peninsular variety) as a prototypical V-framed language will generally use a verb per segment and pack more verbs in a narrative especially if they encounter a cross-boundary constraint, i.e., a change of state (Berman & Slobin, 1994; Slobin, 2017: 97).

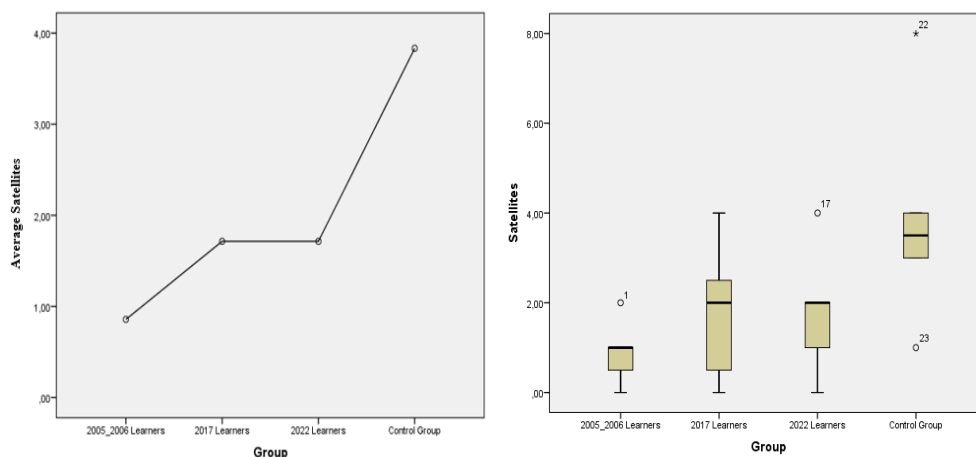


Figure 7: Use of satellites among learners v. the control group

The expectation was that the learner group would provide fewer satellites than the CG. The CG provided 15 verbs which used mostly one satellite out of a total of 33 clauses describing path in the corpus ($M = 3.833$, $SD = 2.31$). On the other hand, in 2005/06 the group provided 6 types of verbs (9 tokens) and 3 satellites ($M = .875$, $SD = .690$). Of a corpus of 24 path clauses, the 2017 learner group provided 8 verbs and only 6 satellites ($M = 1.714$, $SD = 1.496$), whilst the 2022 group produced 8 verbs and 3 satellites ($M = 1.714$, $SD = 1.253$).

Both, Figure 7 and the list of satellized verbs used by both learners and control group in Table 6 show that the expression of manner in path is more elaborate in the control group than in the learner group. From this, it can be deduced that the manner-in-path component appears to be more challenging for learners than manner alone in non-path clauses, and also that path per se poses a challenge to learners. In addition, both the graph and the boxplot reflect the slight attrition in the 2022 group.

The one-way ANOVA between-subjects conducted to compare the effect of non-instruction on the use of satellized path in learners as compared to the CG reflects a significant effect at the $p < .05$ level for the three conditions [$F(3, 23) = 4.43$, $p = .013$]. However, the post hoc Scheffé shows that the only mean significantly distinct at 5% is that yielded by the 2005/06 group relative to the CG ($SD = 2.976$, $p = .017$).

4.4.3 *Multi-segmental path.*

The last point in this section relates to the number of examples of multi-segmental or complex paths learners provided in comparison to the CG, generally considered the most difficult notion for learners due to the cross-boundary constraint. Nevertheless, the CG produced only one example of a double-segmented path (21) proving that it is a choice, not a rule. The construction includes two locatives *the bed* and *the restroom*, and manner is provided by the verb *rush*:

(21) Mathew rushed out of bed to the restroom to prepare for work.

The learner group did not yield any example of complex path. A way of illustrating this is observing how a learner lexicalized *the waking-up* core plot component throughout the years (examples 22 to 25). This learner produced several on target constructions which, nonetheless, never overcome the cross-boundary constraint.

(22) 2005: It was a quarter to seven and I was in bed still! I was too late! I woke up and I started to prepare.

(23) 2006: Tom *who* was sleeping with his wife when the clock sounded and woke up him.

(24) 2017: ...the man jumps out of bed and rushes into the bathroom.

(25) 2022: Antonio jumps out of bed, shocked, in fear of being late to work again; he runs to the toilet to brush his teeth; he eats a toast as he is hurrying to leave the house on time.

The examples depict an event partitioned into smaller segments, each headed by a motion verb. If we focus on the 2017 construction, the learner produced the same verb as the CG participant but where the former segmented the action into two parts (24), the latter conflated two segments under one verb (21).

Table 6: Frequency of verbs + satellites between the CG and the learner groups

Group	Verbs	Satellites	Total
CG	empty ride hop move jump, leap, run, wake her up, rush go ride, come (3), go, head, run, turn back, bike out, come up	into off on onto out over to	20
2005	come, go (2), walk	to	4
2006	go (3), run ride	to away	5
2017	cycle, get, go (2), run (2), rush run jump	to through up	9
2022	bike, come, start sb's way, arrive, run (2), rush, go (2) jump ride	to out through	12

5. DISCUSSION

The main question this study sought to answer was whether instructed advanced learners can spontaneously and without instruction conflate manner of motion in simple and complex path. Looking at the results the answer seems to be nuanced. The results presented above show the learner group used fewer verbs of motion, manner verbs, plus-ground clauses, and simple path segments than the native control group and did not yield any example of multi-segmented path. Additionally, they used more words to render their stories possibly indicating a consolidation of learner narrative style, but also a deeper knowledge of the L2 mirrored in a richer lexical and syntactical output.

In line with Talmy's typological framework and Slobin's observations, the subjects generally tended to write texts that are inherently descriptive and V-framed in nature but which, nevertheless, show partial acquisition of lexicalization patterns for motion of the L2, especially in their use of motion verbs and simple path expression. And yet, constructions common to their L1 were used throughout the years regardless of their level of proficiency, as was the case of *take the car to go to work*.

Of course, the reasons for this result can be manifold but one that may explain this phenomenon more clearly is conceptual transfer. Scholars of conceptual transfer argue that conceptualization in the L2 runs along a cline and does not necessarily combine with other systems such as lexical or morpho-grammatical (For more information on this see Jarvis & Pavlenko, 2008 and Selinker, 1972, 2013). This study suggests that a learner may be very competent in morph-syntactic and pragmatic aspects, and yet exhibit a lower level of awareness of differing concepts in the L2. Concerning the latter, Larrañaga, Treffers-Daller, Tidball and Ortega (2012) have stated that conceptualizing motion events where a boundary-crossing constraint is present pose enormous challenges to both beginner and advanced learners. The results in the present research seem to support this claim as even the most accomplished learners could not provide examples of complex path.

Furthermore, some authors assert that intermediate learners present clear transfer of motion rhetorical style (Stam 2010, 2015; Treffers-Daller & Tidball, 2015), however, the present research shows advanced learners also reflect the lexicalization patterns of their native language in how they describe motion in English. Explanations for this phenomenon are numerous, and none is an inherent incapability of narrating a story in an S-framed way. In fact, some of the learners' best examples show that despite lacking explicit instruction on conflation

of events and being unaware of this distinction between English and Spanish, they generated sound examples of simple S-framed constructions.

Secondly, it has been stated that conceptual systems are difficult to modify (Berman & Slobin 1987, 1994; Slobin, 1991, 1996, 1997, 2004), yet this paper posits it is not impossible. Intrinsic attentional factors may account for the lack of awareness leading to non-acquisition of motion in space whereby learners assume subconsciously that conceptual differences among languages are non-existent. In the words of Schmidt in Robinson (1995: 283) “awareness of the form of input at the level of “noticing,” is necessary to subsequent second language acquisition.” Moreover, a study into the association between attention and memory in SLA by Robinson (1995) has emphasized the need for a degree of focal attention in language learning. However, the spotlight should fall not only on the learners as it should behoove instructors - both native and non-native - to bring the path component forth. Learners’ attentional systems need to be drawn to the granularity of path constructions in order to first build awareness of the semantic, structural and conceptual differences between rhetorical styles, and second, to learn them.

A third unexpected result is the slight L2 attrition the learner group seems to be undergoing even though all the subjects work in English and four reside in English-speaking countries. It is fair to conclude that the 2017 collection yielded more naturalistic examples of path because more than half of the group were still being instructed in ESL. The beneficial impact of lessons cannot be understated at any level of attainment, nor can we underestimate the staying power of interlanguages and fossilization (for more on this see Selinker 1972 and 2013).

6. CONCLUSIONS

Given all the above, two clear conclusions can be drawn from the 2005-2022 study. Firstly, advanced learners may need to overcome what Pavlenko and Jarvis describe as a “reliance on language-mediated concepts of the source language to encode spatial relationships in the recipient language” (2008:160) if they are to encode motion events more naturally and not assume they run on the same set of parameters as the L1 to describe this reality. Therefore, course instructors and designers need to underscore the importance of spatial relations to learners’ notions of naturality and appropriateness in certain contexts.

Secondly, *The Dustman* adds to the conversation that both conflated manner-of-motion and specifically path must be brought forth and taught explicitly so that learners acquire a productive understanding and usage of constructions that mirror this concept. This is not just a question of “esthetics” but implies a change in the conceptual representation of space and motion (Jarvis & Pavlenko, 2008: 142), inducing a more profound and multi-layered understanding of the L2 among advanced learners, many of whom are active teachers instructing children and adolescents.

Finally, the limitations of this study have been stated throughout this article, though long in time it is small in population size, thus the robustness of the statistical analysis can be called into question. Nevertheless, its value rests on its replicability, which can be carried out in places with a high number of learners and high permanence, in other words, a classroom. Instructors are in the best position to implement longitudinal studies and sow their benefits and insights.

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APPENDIX 1

Verbs of motion and their frequencies

Learners				
2005	2006	2017	2022	CG
Appear (1)	(dis)Appear (3)	Appear (1)	Approach (2)	Approach (1)
Arrive 2	Arrive (1)	Approach (3)	Arrive (2)	Arrive (3)
Come (1)	Come (1)	Arrive (2)	Bike (2)	Bike (1)
Go (4)	Get (1)	Cycle (1)	Come	Come (3)
Park (1)	Go (6)	Drive (1)	Cycle	Free (1)
Stop (2)	Ride (3)	Get (2)	Go (4)	Get back (1)
Walk (2)	Run (1)	Go (4)	Head	Get on (1)
	Walk (1)	Head (1)	Jump	Get up (1)
		Jump (2)	Leave	Go (3)
		Leave 2	Reach	Go back (1)
		Park (1)	Ride	Head (2)
		Pass (1)	Run (2)	Hop (2)
		Ride (3)	Rush	Jump (1)
		Run (3)	Start *	Leap (2)
		Rush (2)	Stop	Leave (1)
				Lift (1)
				Make off (1)
				Move on to (1)
				Pull (1)
				Ride (5)
				Run (1)
				Rush (1)
				Swing (1)
				Throw (2)
				Turn around (1)
				Turn back (1)
				Wake sb. up out of (1)
Types: 7	8	15	15	27
Tokens: 12	17	29	22	41