LEARNING VERBS OF MOVEMENT IN A FOREIGN LANGUAGE: SPANISH STUDENTS OF ENGLISH IN A FORMAL CONTEXT

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Abstract: *Native speakers of different languages may conflate reality in different ways. One of the most illustrative examples of this idea is movement and the divergences in its lexicalization on the part of the native speakers of English and Spanish. The present study focuses on the lexicalization of motion events in the learners' interlanguage. We compare the use of Path and Manner verbs in two groups of native speakers of Spanish studying English at elementary and advanced levels. The way movement was conflated by the advanced group was reasonably close to the English way, whereas the elementary group was still far from the English lexicalization of movement. These results support the language-based theories on cognition as they show that differences of L2 proficiency may have an influence in the way motion is lexicalized in the L2.*

Key words: language learning, motion events, Spanish, English, second language, lexicalization

1. INTRODUCTION

Human experience can be conceived in different ways according to the language used by native speakers. There are two main views about the language-cognition interface. One the one hand, we can find the universal approach mainly represented by Jackendoff (1986; 1990) or Comrie (1981). These authors hold that conceptual structures are universal, that is to say, similar across languages. This statement is behind the idea that linguistic differences in verbal categories or syntactic constructions do not reflect conceptual divergences, but just linguistic ones (Gennari *et al.* 2002). On the other hand, there is the opposite approach called 'language-based' supported by authors such as Whorf (1956), Lucy (1993) or Slobin (1996). They argue that conceptual representations are not universal and that linguistic categories can get to shape the speakers' conceptualization of experience. In this line, Jarvis states that "bilinguals' choice of words […] may reflect different ways of conveying meaning and intentions that are specific to particular language backgrounds" (Jarvis 2010: 1).

Focusing on this language-based approach, we can distinguish three views which differ in their understanding of the way language and thought interact. The first one points to a strong language-based view which suggests that "non linguistic cognitive processes will be closely linked to the form or the content of the language spoken" (Gennari *et al.* 2002: 2). The second one is the weak view of this approach, which argues that linguistic influence is only given in special contexts or circumstances, for instance during the speaking process. It is in language production when speakers may pay special attention to those aspects of experience that their grammars obligatorily encode. Put another way, linguistic influence on conceptualization of experience may only occur when this experience is linguistically mediated (Slobin 1996).

The question behind these contrary ideas is whether language shapes or is shaped by cognition. The possible answer to this question has been the spotlight of the debate on language and thought. Several studies have provided evidence on both general approaches. In the case of the universal approach Landau and Jackendoff (1993) or Malt *et al.* (1999) studied aspects such as physical space and colour. They did not report significant differences in the way native speakers of different languages conceptualized space or classified colours. However, evidence was also found by supporters of the language-based approach. This is the case of Brown and Levinson (1993) and Bowerman (1996), who found that speakers of different languages lexicalized space and colour in different ways.

Motion events and how people lexicalize experience are a good example of the language-concept relationship (Levin, 1985; Jackendoff, 1990; Choi and Bowerman, 1991; Talmy 1991; Grennari *et al.*, 2001; Folli *et al.*, 2005; Goldberg, 2006). We can find several experimental studies which have confirmed the differences in encoding motion across different languages (Slobin,1996; Berman and Slobin, 1994; Naigles *et al.*, 1998; Papafragou *et al.*, 2001). Thus, native speakers of different languages express movement according to the specific language they

speak. As Naigles at al. (1998: 365) state, *"not all languages express the same spatial or motion concepts with clearly corresponding or easily inter-translatable terms"*.

Talmy (1991) classifies verbs of motion in manner-framed or path-framed. The former focus on the way movement is accomplished while the direction or path of action appears as a prepositional phrase or another nonverbal element. Some of the most spoken manner languages are English, German, Russian or Chinese. By contrast, in the latter such as Spanish, Greek or Japanese, movement is mainly encoded as direction, being manner information represented by gerunds, prepositional phrases or it is simply omitted. Studies on lexicalization of path and manner languages show that, although manner languages have path verbs and path languages have manner verbs, there is a preference in the way motion is lexicalized by each group. In fact, "speakers of English and Spanish differ in how they talk about the same observed change of location" (Gennari *et al.* 2002: 5).

In English, constructions conflating movement are usually composed of a main verb – which, as well as motion, involve manner, whereas direction or path is encoded by a particle (satellite). On the other hand, the Spanish language has a main verb to conflate path, expressing manner with a gerund or a prepositional phrase. Put another way, English speakers encode manner in the verb, while Spanish speakers encode path and tend to omit manner.

Several studies confirm the different frames used in one and the other language. One of the first researchers dealing with the lexicalization of motion events was Slobin (1996). His well-known study using the story "Frog, where are you?" showed, among other things, that there was an important difference in the way English and Spaniards describe movement. The former tended to use manner verbs (jump, crawl, run), whereas the latter preferred path verbs (*entrar*, *salir*, *subir*, *bajar*). Spanish native speakers focused on direction and used gerunds or prepositional phrases to express manner. On their part, English speakers used manner verbs or a verb plus a satellite to indicate path or direction (up, down, in, out).

In another study, Naigles *et al.* (1998) showed that Spanish were more prone than English to use bare verbs (verbs with no locative complement). In fact, Berman and Slobin (1994) appreciated that Spanish narratives are rich in descriptions regarding ground information. They include details that have nothing to do with the movement event, whereas English narratives are more dynamic, focusing on the motion event.

Most studies compare native speakers of different languages or native speakers with non native speakers of a given language. Nonetheless, we find the case of Navarro and Nicoladis (2005) who exclusively work with proficient non native speakers of Spanish. They wanted to know to what an extent the L1 affects lexicalization of motion in the L2. They were one of the pioneers in investigating lexicalization of motion events regarding the subjects' interlanguage. Yet, Navarro and Nicoladis (2005) are an exception in the field. Hence, studies on motion in English and Spanish have generally focused on L1 or the comparison between native and non native speakers. What is more, the linguistic context adopted by researchers is usually English or Spanish as an L2, where subjects learn their L2 as a vehicular language in a place where this language is officially spoken. Yet, despite important research on the deep and pervasive differences among some languages, not much is known about lexicalization of verbs in speakers who can communicate in more than one language (Pavlenko, 2005).

2. AIM

The present study goes a little further by providing some novelty in two aspects. On the one hand, the interlanguage rather than the L1 is explored. On the other hand, we focus on a foreign language learning context, where the L2 is not used as a vehicular language outside the classroom. The aim is to find out whether a change in the L2 level involves a change in the way movement is lexicalized by students. This fact would indicate that there is a language effect on the kind of concepts that human beings use and the way they express those concepts.

3. RESEARCH QUESTIONS

In order to accomplish the aim stated above, three research questions are posed:

1. Is there a significant difference in amount motion verbs used by elementary and advanced students?
2. Is there a significant difference in the use of path and manner verbs between elementary and advanced students?
3. Is there a significant difference in the complexity of structures used by elementary and advanced students?

4. METHOD

4.1. Participants

Twenty Spanish students of English took part in this study. All of them studied at the Official School of Languages and were between 18 and 27 years old with a mean age of 23. There are 11 men and 9 women. At the time the empirical work was carried out, ten of them (4 men and 6 women) had been studying English approximately for 20 months and had an elementary level (A2 according to the CEFR). The other group of ten students (7 men and 3 women) had been studying English for five years, being classified as advanced (C1 according to the CEFR).

4.2. Materials and Procedure

The stimuli for the experiment consisted of a set of three video clips of the well-known cartoons *Pink Panther* taking between 3 and 4 minutes each. This type of material is reasonably adequate given the amount of motion that is provided. These cartoons do not normally have a dialogue but can be easily followed because they are highly illustrative. It was explained to the participants that they were going to see different short video clips of the cartoon series Pink Panther. They were asked to describe what they saw, but there was no especial mentioning about motion events. Participants were tested individually and recorded while they were speaking, so that each speech could be transcribed and analyzed.

4.2. Code

We consider a verb of movement any action involving voluntary displacement or change of position of an animated being. Accordingly, only movements made by the Pink Panther or any other character were analyzed. Following previous studies (Talmy, 1985; Slobin, 1996; Naigles, 1998), motion verbs were classified into path and manner actions. Given the nature of the present study, these two categories were further divided into groups, so that we obtained a classification which was slightly more complex. In other words, each category was subdivided into bare and complex verbal structures.

The difference between these two sub-categories relies on the presence or absence of locative complements or satellites. Bare verbal structures only consist of a word which is the verb itself and which indicates the action. Complex verbal structures can indicate only direction, source and direction, direction and goal or all the three at the same time, that is, source, direction and goal. Consequently, we can expect several combinations, namely a simple or bare path verb such as 'go', a complex structure of path such as 'go into', a simple manner verb such as 'run' or a complex structure of manner such as 'run away from'.

4.4. Data analysis

In order to compare the way motion is lexicalized in the L2 by the two level groups, the parametric test of the analysis of variance or ANOVA has been run. In this case, the independent variable is the students' level of English, whereas the dependent variable corresponds to the lexicalization of movement, represented by the task. According to the research norm in Linguistics, differences are considered significant when $p<0.05$.

5. RESULTS AND DISCUSSION

5.1. Is there a significant difference in the use of verbs of movement between elementary and advanced students?

The use of verbs of movement in general amounts to 12 occasions on average. In their descriptions of motion event the elementary group resorted to a verb of movement in 11 occasions, whereas the use of movement on the part of the advanced group went up to 14 (see table 1). As can be seen in table 2, the critical level associated to F (.008) is lower than 0.05. Consequently, we can assume that the compared means present a significant difference between those students with elementary and advanced level. Put another way, the advanced students used more verbs of movement in their descriptions than the elementary students did.

Table 1. Descriptive statistics of the use of motion verbs in elementary and advanced students.

	N	Min	Max	Mean	Std. Deviation
A2	10	9	15	10.80	2.150
C1	10	10	19	14.20	2.898
Valid N	10				

Table 2. Analysis of variance of the use of motion verbs in elementary and advanced students.

	Sum of squares	df	Quadratic mean	F	Sig.
Inter-groups	57.800	1	57.800	8.877	0.008
Intra-groups	117.200	18	6.511		
Total	175.000	19			

These results are not surprising as students with higher level are expected to know more vocabulary and use this vocabulary in their descriptions. It is important to bear in mind, though, that this difference may be not directly related to the use of verbs of movement and the higher or lower degree of dynamism of the narrative. That is to say, the higher amount of verbs of movement in the advanced group may be just a consequence of the use of more vocabulary in general. What is more, it is also important to highlight that both groups did not use any motion verb in some occasions even though movement was present in the scene. There might be two reasons for that. First, students did not know how to express a specific type of motion so that they chose not to do it; or second, students ignored movement and focused on other details.

In addition, native speakers of English tend to be highly dynamic when describing something. However, Spanish narratives are full with details about context and ground information. In other words, whereas the former tend to focus on movement, the latter prefer paying more attention to aspects that have nothing to do with motion (Slobin 1996). Therefore, we can infer that even the advanced group still has some problems with the lexicalization of motion in their L2, and that if it is true that advanced narrations contain more motion verbs, they are not necessarily dynamic.

5.2. Is there a significant difference in the use of path and manner verbs between elementary and advanced students?

As a general mean students used a path verb in 8.3 occasions. The elementary group is found in this line with 8 occasions. As regards the advanced group, the use of path verbs is slightly higher with almost 9 occasions (see table 3). Table 4 shows that the critical level associated to F is much higher than 0.05 with a value of almost 0.5 (.404). Consequently, we can assume that all the compared means present no significant differences between them. Put another way, the two groups have a similar behavior as regards the use of path verbs, and therefore, no significant difference was found.

Table 3. Use of path and manner in elementary and advanced students.

	N	Min		Max		Mean		Std. Dev.	
		Path	Manner	Path	Manner	Path	Manner	Path	Manner
A2	10	6	1	10	5	8	2.80	1.333	1.135
C1	10	6	2	12	9	8.60	5.60	1.776	1.955
Valid N	10								

The picture for the manner verbs is quite different. On average, students used 4 manner verbs in their description. More specifically, the elementary group was reasonably below this mean with 2.8 occasions, whereas the use on the part of the advanced group was markedly above the mean with 5.6 verbs of manner used in the description.

Table 4. Analysis of variance of the use of path verbs in elementary and advanced students.

	Sum of squares	df	Quadratic mean	F	Sig.
Inter-groups	1.800	1	1.800	0.730	0.404
Intra-groups	44.400	18	2.467		
Total	46.200	19			

These differences are shown in the Anova analysis of table 5. As can be seen, the critical level associated to F (0.001) is much lower than 0.05. Consequently, we can reject the null hypothesis that the population means are equal. Accordingly, we can state that the use of manner verbs is different in the elementary and advanced group. In other words, the use of manner verbs on the part of the advanced students is significantly higher.

Following Naigles and Terrazas (1998) and Navarro and Nicoladis (2005), the higher the English level of the Spanish speakers, the fewer the path verbs used in this L2 and, at the same time, there will be an increase in the

use of manner verbs. That is, the advanced group of English students will be closer to the way English speakers lexicalize motion.

Table 5. Analysis of variance of the use of manner verbs in elementary and advanced students.

	Sum of squares	df	Quadratic mean	F	Sig.
Inter-groups	39.200	1	39.200	15.339	0.001
Intra-groups	46.000	18	2.556		
Total	85.200	19			

These results show that having a higher level of English does not necessarily means cutting down in the use of path verbs. Both the elementary and advanced group has a similar use of path verbs. However, we can observe an effort on the part of the advanced students to use manner structures. This fact shows that a high L2 level might lead to a lexicalization which is closer to that of the L2. It seems that the conflation of motion events has evolved towards the English pattern in the case of advanced students. These results run counter to Slobin's results. He suggests that speakers normally stick to their L1 when conflating movement. Yet, our study shows that there is a change in the way native speakers of Spanish who study English express motion in this language, depending on their L2 level.

5.3. Is there a significant difference in the use of simple and complex structures between elementary and advanced students?

We observed differences in the complexity of structures used by elementary and advanced students. In general terms, the elementary group resorted to a complex movement structure in two occasions (see table 6 and 7), what represents only around 18% of the total use of movement verbs. As regards the advanced group, the complex movement structures increased up to 12 or a means of 10 occasions per student, which amounts to almost three quarters of the total (71.83%) use of movement verbs.

Table 6. Descriptive statistics of the use of simple and complex path verbs in elementary and advanced students.

	N	Min		Max		Mean		Std. Dev.	
		Simple	Complex	Simple	Complex	Simple	Complex	Simple	Complex
A2	10	5	0	9	2	6.70	1.50	1.337	0.707
C1	10	1	0	4	3	2.60	1.80	1.174	0.919
Valid N	10								

Table 7. Descriptive statistics of the use of simple and complex manner verbs in elementary and advanced students.

	N	Min		Max		Mean		Std. Dev.	
		Simple	Complex	Simple	Complex	Simple	Complex	Simple	Complex
A2	10	0	0	4	1	2.10	0.50	1.197	0.527
C1	10	1	1	5	4	3.20	2.40	1.317	0.966
Valid N	10								

The Anova analysis in table 8 shows that these differences are highly significant as the critical level associated to F (0.000) is much lower than 0.05. Consequently, we can assume that the compared means are not similar. In other words, the use of complex movement structures is markedly higher in the advanced than in the elementary group.

Table 8. Analysis of variance of the use of complex structures in elementary and advanced students.

	Sum of squares	df	Quadratic mean	F	Sig.
Inter-groups	336.200	1	336.200	49.766	0.000
Intra-groups	121.000	18	6.756		
Total	457.800	19			

More complex structures will be observed in the higher level group. That is to say, members of the higher level will use more complex structures than will those in the lower level. The presence of satellites implies a more complex structure than bare verbs do. Despite this fact, some beginners also made use of complex verbal structures. In fact, both groups coincided in the use of the complex structure indicating only direction, even though, as stated above, the advanced group made a wider use.

However, it is important to highlight that, when using a complex structure, the two groups mainly used the same type of sub-category. Both elementary and advanced students chose the "direction-goal" structure. This type of construction was used in 85% occasions a complex structure was selected by the participants. In the case of the intermediate group the use of the "direction goal" was around 75%, whereas this percentage went up to 80% in the advanced students. These results show that similarities can still be found between students at different levels as regards lexicalization of movement.

6. FINAL REMARKS AND LIMITATIONS OF THE STUDY

The present study explores a possible relationship between foreign language level and lexicalization of movement in that language. Results seem to confirm that the higher the level of a foreign language the closer to the way movement is lexicalized in that foreign language. It has been observed that the advanced group focus on movement more than the elementary group. As for the use of path or manner verbs, there are significant differences between the two groups, tending the advanced students to a higher use of manner than path – which shows an inclination towards the L2 lexicalizing process. The advanced group makes wider use of complex structures than the elementary does.

Yet, both groups coincide in the type of sub- category chosen, which suggests that even advanced students still have some influence from their L1. Therefore, the present study

seems to support the language-based theories on cognition, as the L2 has proved to influence the way ideas are lexicalized.

Although this study has reached its aims, there are some limitations, in many cases unavoidable, that need to be taken into account. First, although 40 students initially volunteered for this research, the study had to be eventually conducted on a smaller size of population. Therefore, to generalize the results, further studies need to be done involving a bigger number of participants. In the second place, it has to be highlighted that the different levels of the two groups was not random. Doing the same experiment with two groups that had closer levels might have taken us to misleading conclusions. Nevertheless, it would be interesting to include a third group with a B1 or B2 level in order to enrich this type of research.

REFERENCES

Berman, R. and Slobin, D. (1994). *Relating Events in Narrative: A Crosslinguistic Developmental Study*. Hillsdale: Erlbaum.

Bowerman, M. (1996). "The Origins of Children's Spatial Semantic Categories: Cognitive versus Linguistic Determinants". in J. Gumperz and S. Levinson (eds.) *Rethinking Linguistic Relativity*. Cambridge: Cambridge University Press, 145-76.

Brown, P. and Levinson, S. (1993). " 'Uphill' and 'Downhill' in Tzeltal". *Journal of Linguistic Anthropology, 3*(1), 46-74. doi:10.1525/jlin.1993.3.1.46

Choi, S. and Bowerman, M. (1991). "Learning to express motion events in English and Korean: the in the influence of language-specific lexicalization patterns", *Cognition, 41*(1), 83-121. doi:10.1016/0010-0277(91)90033-Z

Comrie, B. (1981). *Language Universals and Linguistic Typology: Syntax and Morphology*. Chicago: University of Chicago Press.

Folli, R and Harley, H. (2005). "Flavours of v: Consuming Results in Italian and English", in P. Kempchinsky and R. Slabakova (eds.) *Aspectual enquiries*. Dordrecht: Springer. 95-120.

Gennari, S., Sloman, S., Malt, B. and T. Fitch. (2002). "Motion events in language and cognition". *Cognition, 83*(1), 49-79. doi:10.1016/S0010-0277(01)00166-4

Goldberg, A. (2006). *Constructions at Work: The Nature of Generalization in Language*. Oxford: Oxford University Press.

Jackendoff, R. (1986). *Semantics and Cognition*. Cambridge: MIT Press.

Jackendoff, R. (1990). *Semantic Structures*. Cambridge: MIT Press.

Jarvis, S. (2010). "Conceptual transfer: Crosslinguistic effects in categorization and construal". *Bilingualism: Language and Cognition*, *14*(1), 1-8. doi:10.1017/S1366728910000155

Landau, B. and Jackendoff, R. (1993). " 'What' and 'where' in spatial language and spatial cognition", *Behavioral and Brain Sciences, 16*(2), 217-238. doi:10.1017/S0140525X00029733

Levin, B. (1985). "Lexical semantics in review: An introduction". In B. Levin (ed.), *Lexical Semantics in review*. Cambridge: MIT Press.

Lucy, J. (1993). *Grammatical Categories and Cognition*. Cambridge: Cambridge University Press.

Malt, B., Sloman, S., Gennari, S., Shi, M. and Wang, Y. (1999). "Knowing versus naming: similarity and the linguistic categorization of artifacts", *Journal of Memory and Language, 40*(2), 230-262. doi:10.1006/jmla.1998.2593

Naigles, L. and Terrazas, P. (1998). "Motion-verb generalizations in English and Spanish: Influences of language and syntax", *Psychological Science, 9*(5), 363-369. doi:10.1111/1467-9280.00069

Navarro, S. and Nicoladis, E. (2005). "Describing motion events in adult L2 Spanish narratives", in D. Eddington (ed.), *Selected Proceedings of the Sixth Conference on the Acquisition of Spanish and Portuguese as First and Second Languages*. Somerville: Cascadilla Proceedings Project, 102-107.

Papafragou, A., Massey, C. and Gleitman, L. (2001). "Shake, rattle 'n' roll: The representation of motion in language and thought". Ms. University of Pennsylvania.

Pavlenko, A. (2005). "Bilingualism and Thought", in J. F. Kroll and A. M. B. de Groot (eds.), *Handbook of Bilingualism: Psycholinguistics approaches*. New York: Oxford University Press, 417-432.

Slobin, D. (1996). "Two Ways to Travel: Verbs of Motion in English and Spanish", in M. Shibitani and S. Thompson (eds.) *Grammatical Constructions: Their Form and Meaning*. Oxford: Oxford Clarendon Press, 195-220.

Talmy, L. (1991). *Path to Realization: A Typology of Event Conflation*. Berkeley: Berkeley Linguistic Society.

Whorf, B. (1956). "The Relation of Habitual Thought and Behaviour to Language", in J. Carroll (ed.), *Language, thought, and reality: selected writings of Benjamin Lee Whorf*. Cambridge: MIT Press, 39-58.