Metaphors set in motion in the context of L2 academic spoken discourse

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Abstract

Theoretical and applied research in physical motion events (MEs) (Talmy, 2000; Ibarretxe-Antuñano, 2017) has shown that (1) speakers tend to organize MEs around a specific semantic component resulting in at least two different lexicalization patterns (satellite-framed and verb-framed languages), with different narrative styles (Slobin, 1996, 2004); (2) the use of specific patterns may also depend on genre and discourse (Caballero, 2017); and (3) the adoption of the narrative style of an L2 is challenging (Cadierno, 2008). These findings seem to also apply to metaphorical motion events (MMEs) (Özçalışkan, 2005; Ibarretxe-Antuñano & Caballero, 2014).

This study analyses the linguistic realizations and discourse functions of MMEs in the specific context of oral EMI seminars to examine ME prevalence and the impact inter-typological differences may have on the production of MMEs. Data from three seminars from METCLIL corpus were selected to compare MME verb production by English L1 speakers (n=4) and L2 English speakers (satellite-framed: n=4; verb-framed: n=9). Results show that (i) individual variables (speakers' L1 typology or lecturer's

input) do not seem to have a determining impact on MME employment, while (ii) contextual factors (to-be-performed activities) have been shown to have a more salient role in MME usage and performance of discursive functions.

Keywords: metaphor, motion, spoken discourse, academic seminars, English as a Medium of Instruction (EMI).

Resumen

La investigación sobre eventos de movimiento (EMs) físico (Talmy, 2000; Ibarretxe-Antuñano, 2017) ha demostrado que (1) los hablantes tienden a organizar los EMs según un componente semántico específico que produce al menos dos patrones de lexicalización (lenguas de marco satélite y verbal) con diferentes estilos narrativos (Slobin, 1996, 2004); (2) el uso de patrones específicos puede depender del género y del discurso (Caballero, 2017); y (3) la adopción del estilo narrativo de una L2 es complicada (Cadierno, 2008). Esto parece aplicarse también a los eventos de movimiento metafórico (EMMs) (Özçalıkan, 2005; Ibarretxe-Antuñano y Caballero, 2014).

Este estudio analiza el empleo de EMMs en seminarios académicos examinando la frecuencia de EMs y el impacto de las diferencias inter-tipológicas en la producción de EMMs, en tres seminarios del corpus METCLIL, comparando el uso de verbos EMM en hablantes de inglés L1 (n=4) y L2 (lengua satélite: n=4; marco verbal: n=9). Los resultados indican que variables individuales como la tipología de L1 no parecen tener un impacto decisivo en el uso de EMMs, mientras que factores contextuales, como la actividad a desarrollar, son más determinantes en el uso de EMMs y su ejecución de funciones discursivas.

Palabras clave: metáfora, movimiento, discurso oral, seminarios académicos, Inglés como Medio de Instrucción (EMI, según sus siglas en inglés).

1. Introduction

English as Medium of Instruction (EMI) programs have undergone a significant increase worldwide in the last couple of decades (Dafouz & Smit, 2020; Macaro, 2018). These educational programs offer content courses in which English is used as a vehicular language, mostly in Higher Education institutions where English does not have official language status. In this regard, one of the main benefits of the programs is that students, primarily L2 English speakers, are provided with opportunities to prepare themselves to meet the demands of a globalized economic world, in a context where development of English language skills is not a primary aim of the course

but is nevertheless the result of its instructional application in the class (Pecorari & Malmström, 2018).

EMI programs have developed in parallel to the implementation of other content-based practices, such as the Content and Language Integrated Learning (CLIL) approach, at different educational levels. Both content-based practices share the objective of helping students develop a second language (L2) in an educational context where the additional language is used meaningfully. However, research in both areas has taken different, although complementary, paths despite their convergent goals. On the one hand, research on EMI has heavily concentrated on characterizing the phenomenon theoretically (Macaro, 2018; Pecorari & Malmström, 2018) and identifying the self-perceived needs of main stakeholders (Aguilar & Rodríguez, 2012; O'Dowd, 2018). In contrast, CLIL research has primarily focused on analyzing the linguistic impact of its implementation and characterizing the approach linguistically (Alejo-González, 2018). In this regard, research has explored language use in CLIL focusing on elements such as interpersonal discourse management (Dalton-Puffer, 2003; Dalton-Puffer & Nikula, 2006), the identification of classroom registers (Llinares et al., 2012) or academic genres (Lorenzo, 2013) and their implications for language learning, and the analysis of the impact of the first language (L1) and the L2 on classroom interaction (Nikula, 2005).

In our view, the linguistic-centered approach adopted in CLIL research should be incorporated into the EMI context. Exploring the linguistic setting in which EMI takes place and identifying the potential linguistic difficulties students may encounter in real EMI environments might represent a step forward in helping students overcome the linguistic challenges EMI courses may pose when attending to and interacting in lectures delivered in English.

This study seeks to provide some insights into EMI learners' metaphor use in the source domain of motion, by means of exploring the employment of these linguistic elements and their performance of discourse functions. As will be seen, section 2 first reviews the use of metaphor in academic contexts and the realization of motion events (MEs) in discourse. Among the different linguistic realizations to be explored, metaphorical motion events (MMEs) have been selected. Given the current literature that identifies metaphor as one of the missing linguistic characterizations in CLIL and EMI research (Alejo-González & García-Bermejo, 2019), this study seeks to provide some insights into EMI learners' metaphor use in the source domain of motion by exploring the function of the target linguistic expressions. Among the different EMI academic registers (i.e., lectures, written reports, essays, or seminars), the present study has concentrated on academic seminars to explore L2 learners' genuine oral production in a highly participative instructional context where students have a central

role. The focus of the analysis of students' oral production of motion expressions is twofold: (i) metaphor production, and (ii) discursive-pragmatic functions for which metaphorical motion is employed. Section 2 first reviews metaphor usage in academic contexts and the realization of MEs in discourse. Section 3 details the methodology employed. Results are presented in section 4 and discussed in section 5. Finally, some conclusions derived from our findings are drawn in section 6.

2. Metaphor, academic contexts, and motion

Before undertaking this study, however, it is necessary to justify the importance of metaphor in academic environments and the key role of motion events in discourse. The following sections present a brief literature review of some selected works which have explored these aspects and served as the theoretical and methodological basis for our research.

2.1. Metaphor in academic discourse

Metaphor, the understanding of one idea (source domain) in terms of another (target domain), is not only ubiquitous in everyday language (Lakoff & Johnson, 1980, 1999) but is also of importance to academic discourse (Herrmann, 2013). In the case of EMI contexts, as in any other academic environment, the high degree of abstract language employed involving linguistic realizations of broader generalizations (conceptual metaphors [CMs]) and some of the difficulties these pose for L2 students (Littlemore, 2001; Littlemore & Low, 2006; MacArthur, 2016a; Littlemore et al., 2014; Littlemore & Low, 2016a) suggest that metaphor in university contexts deserves some attention.

Much of the current research on academic events has largely focused on written discourse (see Semino, 2008, for a review), and scant attention has been paid to the presence of metaphor and its role in academic talk, which may be mostly limited to the analysis of specific linguistic aspects in the academic mentoring of L2 students in English as a Lingua Franca (ELF) contexts (e.g., MacArthur & Littlemore, 2011; MacArthur, 2016a, 2016b; Alejo-González, 2021). As has been observed (Alejo-González, 2022), unevenly distributed metaphor activity in office-hour consultations accounts for metaphor bursts or clusters (cf. Cameron & Stelma, 2004) –bounded peaks of metaphor density– occurring with discursive functions, characteristic of the nature of this dialogic interaction. Previous studies (Low et al., 2008; Beger, 2011) also investigated lecturers' use of metaphor to organize their discourse, framing problems, changing topic, or for evaluative purposes. However, little is known about L2 learner metaphor use in other spoken academic environments like seminars, where metaphor is encountered in diverse interactions.

There is a need to describe the metaphors used by L2 learners when talking about the learning experience in academic discourse, with special attention to frequently constructed source domains resulting in varied conventional expressions (Kövecses, 2002; Semino, 2005). To the best of our knowledge, visual perception (UNDERSTANDING IS SEEING) has been a source domain explored in relation to metaphor use in spoken academic discourse (see MacArthur et al., 2015). For the pedagogical purposes of EMI instruction, the exploration of how some key source domains are constructed in academic discourse may contribute not only to a broader characterization of the use of metaphor in the talk about different topics and in different academic activities but also to facilitate students' achievement in their academic work (Boers, 2000).

The source domain of MOTION has been found to be scarcely used by L2 English speakers in written academic language (Moghadam & Samar, 2020) yet frequently present in the academic mentoring of ELF students (Alejo-González, 2021). In this regard, exploring the construction of MOTION in other academic spoken discourse contexts like seminars may shed light on the characterization of educational talk among L2 students.

2.2. Motion events

The study of MEs from a Cognitive Linguistics perspective stems from Talmy's (1991, 2000) work on semantic typology. According to Talmy, languages can be grouped into two typological groups, depending on the encoding of the semantic component of Path, which includes the trajectory of the movement. In verb-framed languages, Path tends to be encoded in the main verb, e.g., *salir* 'go out' in Spanish. In contrast, in satellite-framed languages Path is normally encoded outside the main verb of the event, e.g., *up* in *run up* in English. Slobin (1996, 1997, 2004) found in ME typology an excellent case to develop his Thinking for Speaking hypothesis, i.e., how our semantic and conceptual encodings in our L1 may influence some cognitive abilities such as attention and memory. Slobin (1996, 1997, 2004) found that speakers of satellite-framed languages usually express the components of Manner and Path of motion with more details in their narratives, because of their typological characteristics –Manner is easily encoded in the main verb, Path is not normally inferred, etc. His findings were corroborated with further research on MEs in many languages –see the studies in Berman & Slobin (1994); Strömqvist & Verhoeven (2004) and Ibarretxe-Antuñano (2017). The study of motion events has generated heated debates, but has also been successfully applied to several fields, including translation and L2 acquisition –see Filipović & Ibarretxe-Antuñano (2015); Cadierno (2017) for an overview. Current views on motion events argue for the consideration of motion events typology as a cline, with high- and low-Manner-salient languages (Slobin, 2004) and high- and low-Path-salient languages (Ibarretxe-Antuñano, 2009).

The scope of the study of motion is not limited to translational motion, as it also reaches fictive and metaphorical motion. Fictive motion refers to MEs that are used to describe dynamic situations, using an entity that cannot move (e.g., *a road*) and a motion verb that highlights the special configuration (Matlock, 2004). For instance, *This road zigzags along the coast*. Metaphorical motion involves the use of motion as a source domain to express the non-literal movement of an abstract entity (Özçalışkan, 2005; Ibarretxe-Antuñano & Caballero, 2014; Caballero, 2017). For example, *Prices are going up after the crisis*.

This paper focuses on the latter. More concretely, it examines whether learners use MMEs and for which purpose. To this aim, we follow Ibarretxe-Antuñano & Caballero's (2014; Caballero & Ibarretxe-Antuñano, 2015) approach to metaphorical motion. These authors classify verbs in MMEs into two categories in agreement with two criteria. First, the semantic information of verb involved. MMEs could be Motion1 (M1), i.e., motion verbs *stricto sensu*, when the verb includes motion information in its semantic description as illustrated in example (1), and Motion2 (M2), i.e., when the verb, despite not being a motion verb per se, can be reinterpreted as such due to the construction it is used in as in example (2). Second, MMEs were classified based on the motion semantic elements they encoded. For instance, both examples (1) and (2) lexicalize Manner, that is, the way in which motion is performed.

(1) *Excellent serving saw Federer leapfrog his opponent to reach match point*

(2) *Rafa rampages into Fourth Straight French Open Final*
[Ibarretxe-Antuñano & Caballero, 2014: 148]

The typological differences found in non-figurative motion seem also present in metaphorical motion. For example, Özçalışkan (2005) examined MMEs in written texts (newspapers and novels) and elicitations with questionnaires, focusing on the semantic component of Manner. She found that the typological differences between English and Turkish are extended in metaphorical motion, since Turkish speakers, as speakers of a verb-framed language, paid less attention to Manner, expressing it less in the verb or other elements of the MMEs, and made fewer distinctions of Manner expression.

The restructuring of MEs in an L2 presents numerous challenges for learners (Cadierno, 2004; Negueruela et al., 2004; Navarro & Nicoladis, 2005; Larrañaga et al., 2011; Hijazo-Gascón, 2021). Cadierno (2004) shows how learners are faced with the complex task of acquiring the L2 Thinking for Speaking, in a process called Re-Thinking for Speaking (Robinson & Ellis, 2008). Cross-linguistic influence and conceptual transfer (Jarvis & Pavlenko, 2008) play a crucial role in this process, and results in experimental studies show different degrees of influence of the L1

lexicalization patterns in the expression of motion in the L2 (see Cadierno, 2017). The study of MMEs in the acquisition of an L2 is still scarce and, to our knowledge, virtually non-existent in the case of MMEs in the classroom.

In coherence with previous research in non-metaphorical motion events, it is expected that the typology of the L1 will influence the use of MMEs in L2 English. Consequently, learners whose L1 is satellite-framed, like the target language, should produce more varied and more frequent MMEs than learners whose L1 is verb-framed. An open question that this study aims to address is when and how MMEs are used in the classroom and with what function. Most research in MEs and L2 acquisition focuses on data elicited in experimental settings –with very few exceptions, like Li et al. (2014). Looking into how MMEs are used in an EMI context will expand our understanding of how learners use the MOTION source domain and to what extent typological differences influence this use.

3. Methodology

3.1. *Objectives and research questions*

This article intends to investigate motion in the specific context of EMI interactive seminars. In particular, this study seeks to characterize seminar talk by identifying the source domain of MOTION in the learning experience of EMI students –both L1 and L2 English speakers. The main aim of this study is, thus, twofold:

a. To explore inter-typological differences in the MMEs used in EMI spoken academic discourse. With this objective, we aim to address the following research questions:

   RQ1. Do advanced L2 English learners use MMEs when talking about marketing and business in spoken academic interaction? If so, what are their forms, frequency and density?

   RQ2. If used, does participants' L1 typology (satellite- or verb-framed) influence their use of MMEs? In what way?

b. To determine when and with which discursive-pragmatic purposes, MMEs are employed by EMI learners. This aim will be developed by considering these two research questions:

   RQ3. In which context, how and for what purposes is the source domain of MOTION constructed metaphorically in EMI academic seminars?

RQ4. Does the L1 typology of participants have any impact on the pragmatic-discursive goals of the activities and the extent to which MMEs are used in the different seminar activities?

3.2. *Corpus background information: METCLIL*

Data were extracted from the open access METCLIL (Corpus of Metaphor in Academic Talk), the main outcome of the Spanish national-funded project METCLIL (Alejo et al., 2021). METCLIL contains transcribed oral production –110,496 tokens– from the interaction of EMI instructors and students (mostly L2 English speakers) in nine academic seminars on Marketing and Business administration topics at six European Higher Institutions in six different countries (Spain, Portugal, Italy, the Netherlands, Sweden, and Norway).

Among the different seminars available in the corpus, the three seminars taught in the Spanish Higher Education Institution have been selected. The choice corresponds to the diversity of mother tongues, and the similarity in the structure and balanced combination of activities carried out in the seminars.

3.2.1. Linguistic setting: type of interaction and activities

The three 90-minute seminars are similar in nature of the interaction, duration, and type of activities: 50 minutes devoted to individual presentations (namely, business pitch) and constructive feedback discussion, and 40 minutes for the performance of the same activities but in small-group dynamics.

Seminars are organized around four complementary activities. The first activity consisted of an initial 30-second business pitch (henceforth, pitch) delivered by each student. In the pitch, required to be prepared in advance, students were asked to set themselves apart by providing an informative overview of their own expertise, interests, and prospective career while emphasizing their strengths. The pitch was followed by a second activity –constructive feedback discussion– in which the lecturer and the rest of students reviewed the performance. Subsequently, students were split into two groups to carry out the third activity, where they delivered a further 90-second pitch on the same topic, receiving feedback exclusively from their fellow students. Finally, each group agreed on the most outstanding pitch to be delivered as part of an in-class competition, in which this fourth activity required the target representatives of each group to deliver the 90-second pitch version.

3.2.2. Participants

Concerning participants in the Spanish seminars, only a convenience sample has been explored. After a preliminary analysis, lecturer's speech was not included in the final study given its significant differences in comparison to students' speech in terms of the number of tokens uttered, role in the classroom, and activities and actions performed. In addition, from the total of students (N = 39), the final population comprised exclusively the spoken discourse of 17 students: 4 native speakers (NSs) of English; 9 Spanish L2 English learners, and 4 L2 English participants with a satellite-framed language as their mother tongue (Swedish, German, and Dutch). Given the specific nature of our data (EMI discursively and typologically constrained speakers), the availability of suitable informants is restricted. Therefore, despite the limited data employed in our study, results reported below seem robust. Future studies may shed some light on the scope of the findings later discussed in this paper. Table 1 offers an overview of the participants' speaker-related and linguistic characteristics according to their L1 typology.

Table 1: Participants' overview by L1 typology: speaker-related and linguistic characteristics

L1 typology	N	L1	Self-rated L2 level	Gender
Satellite-framed (NSs)	4	English	C2: 4	Males: 1 Females: 3
Satellite-framed L1 languages	4	Swedish: 1 Dutch: 2 German: 1	C1: 3 C2: 1	Males: 2 Females: 2
Verb-framed L1 language	9	Spanish	B2: 1 C1: 6 C2: 2	Males: 5 Females: 4

3.3. Procedure

For the purposes of this study, the exploration of MMEs concerned primarily the analysis of verb use as being the major MEs realized in the seminars. Therefore, further references to MMEs will address the metaphorical occurrence of motion verbs in discourse.

3.3.1. Corpus analysis

Three different analyses were applied in this study: (i) a motion analysis, to separate the use of MMEs; (ii) a metaphor analysis, to examine the use of MMEs; and

(iii) a pragmatic-function analysis, to explore the context in which, how and for which purpose, MMEs were employed. The first and last analyses were carried out by the authors of this paper, whereas for the metaphor analysis, METCLIL corpus (Alejo-González et al., forthcoming), available at Sketch Engine, was consulted. This corpus provides information about metaphor use. Further information about the different analyses will be given in the following sections.

3.3.1.1. Metaphor

The metaphor analysis was obtained from METCLIL corpus v2 (in process), which includes a metaphor-annotated version following an adapted version of the Metaphor Identification Procedure VU University Amsterdam procedure (MIPVU; Steen et al., 2010). This protocol consists of four consecutive phases: (i) general understanding of the text; (ii) identification of the lexical units; (iii) determination of the basic sense and the contextual meaning of each unit; and (iv) decision on whether the item has a metaphorical use: *not-metaphor*, when the linguistic unit is not considered metaphorical; *indirect*, when the linguistic unit is considered metaphorical but there is not a direct reference to the metaphor, or *direct*, when there is a direct reference to metaphor. To illustrate the procedure, consider the linguistic unit (LU) *reach* and *creating* in example (3) extracted from one of the seminars explored:

> (3) *I will try to explain better how we* **reached** *that idea of* **creating** *this app what was exactly the payment solving* <ELO; L1=Spanish; L2 level=C1>

The MIPVU procedure employs Macmillan Dictionary as the primary source to determine the contextual and basic meanings of LUs. In the specific case of *reach*, its contextual meaning is "MM3. to achieve something after discussing it or thinking about it for a long time", whereas the basic sense of the term is "MM2. to move you hand, arm, leg, etc. towards something that you are trying to touch or pick up". There is no contrast between its contextual meaning and basic sense. Accordingly, *reach* is identified as an *indirect* metaphor-related word (MRW). On the other hand, the LU *creating* is considered *non-metaphor* because its contextual meaning ("MM1. to make something new or original that did not exist before") coincides with the basic sense of the term

3.3.1.2. Motion

The exploration of MEs was dependent on the systematic exploration of the contextual meaning of each verb utterance. First, all the verbs were listed using Sketch Engine and arranged by lemma. Second, the definition of each verb was looked up in

the Macmillan dictionary online to examine the semantic content of each verb and its reference to (or lack of) motion.

Third, the sense in the different contexts in which each verb was produced was examined. In this respect, following Ibarretxe-Antuñano & Caballero's (2014) procedure (see Section 2.2), two main types of motion expressions (MEs) were identified: (i) If the contextual meaning implied motion, and the dictionary contained a definition directly related to motion, this item was labeled as M1; (ii) whereas when in the specific context in which the word was uttered the verb entailed motion –but the dictionary did not include any motion-related meaning– this verb utterance was tagged as M2. Finally, once this first analysis of MEs was concluded, each ME was semantically classified into four types following previous motion verbs categorizations (Cifuentes-Pérez, 2010; Hijazo-Gascón et al., 2013; Hijazo-Gascón, 2021): Path (e.g., *come*), Manner (e.g., *bounce*), Caused-motion (e.g., *bring*), and Neutral (e.g., *move*).

This procedure has led to the inclusion of verbs that other authors may have classified differently. For instance, among the different verbs we have identified, in the literature, *go* has been considered Neutral or Path and *get*, being such a general verb, as motion or non-motion. Following the criteria employed in this study, *go* is a Neutral verb since it means "move from one place to another" and *get* a (Neutral) motion verb since one of its meanings is "move in order to pick up or bring (something)" (definitions taken from the online Oxford Dictionary at https://www.lexico.com/).

3.3.1.3. *Pragmatic function*

To explore the main discursive-pragmatic functions for which the MMEs were employed, these were identified in the contexts of interaction occurring in the seminars. The two main types of activities performed (pitch-delivery and constructive feedback discussion) served as a basis for determining the specific context in which MMEs were used in the seminar, and for what purposes they were employed by looking at the target domains they relate to.

Besides, we drew on Christie's (2002) classification of L2 classroom registers (applied to CLIL contexts in Llinares et al., 2012) to explore potential pragmatic functions. Christie (2002) distinguishes between two "sets of language choice in classroom texts" (p.15), also known as registers: a 'regulative' register, dealing with the type of language employed to regulate behaviors in the classroom, and an 'instructional' register, referring to the language employed when teaching and learning of the content of the classroom.

3.3.2. Quantitative analysis

Two corpus programs were applied to perform the quantitative analysis. Sketch Engine, the website corpus tool where METCLIL is hosted, was employed to calculate the number of tokens, lemmas and MRWs as well as to look at participants' speakers-related and linguistic features. Additionally, the application of TAALED (Kyle et al., 2021) complemented the analysis by providing some lexical diversity indexes, such as the number of content words or the lexical density, i.e., the number of content words divided by the number of tokens.

4. Results

Data will be presented and explored following the objectives set in section 3.1.

4.1. Objective a: To explore inter-typological differences in the MMEs used when talking about marketing and business in EMI spoken academic seminars

A preliminary description of the sample shows that over the number of items uttered in the seminar, the 17 speakers produced a total of 9,871 lexical items (see Table 2 for a more detailed data description). Nearly a third of them were content words, that is, words with lexical meaning, resulting in a lexical density of 0.37.

Table 2: A summary of the analysis of lexical and verb usage

	Measures	TOTAL
Lexical analysis	Tokens	9,871
	Content words	3,668
	Lexical density (content words/tokens)	0.37
Verb-use analysis	ME tokens	74
	ME lemmas	19
	Total number of verbs	1,803
	ME density (ME tokens/verb tokens) (in %)	4.10
	ME diversity (ME lemmas/ tokens)	0.66

Regarding MEs, their employment seems to be relatively low in comparison to the total number of verbs. Focusing exclusively on lexical verbal items with a motion sense,

as shown in Table 2, a total of 74 occurrences out of 1,803 verbs have been pinpointed. This results in an ME density of 4.10; that is, approximately one out of every twenty-five verbs in the corpus is employed with a motion meaning. Besides, when examining the typology of MEs employed (M1 vs M2), none of the ME occurrences have been identified as M2.

This consistency detected in motion typology contrasts with the variability observed in the frequency analysis. As can be inferred from Table 3, MEs are not used uniformly, but there is a notable preference for some of them –mainly, *go*, *put* and *come*– resulting in virtually half of the total of occurrences. The use of these three MEs lemmas contrasts sharply with the little occurrences of eight MEs (about half of the verb lemmas), appearing only once.

Table 3: Motion verbs distribution

Verb	Element of motion	No. of occurrences	Relative frequency over the total number of verbs (in %)
Add	Caused-motion	4	0.22
bounce	Manner	1	0.06
Bring	Caused-motion	6	0.33
Come	Path	8	0.44
continue	Path	1	0.06
follow	Path	3	0.17
Get	Neutral	2	0.11
Go	Neutral	23	1.27
Hurry	Manner	1	0.06
Lead	Path	3	0.17
Move	Neutral	4	0.22
pursue	Path	1	0.06
Put	Caused-motion	8	0.44
Reach	Path	2	0.11
Run	Manner	1	0.06
Send	Caused-motion	3	0.17
Skip	Manner	1	0.06
Slow	Manner	1	0.06
Take	Caused-motion	1	0.11

Concerning their MOTION semantic roles, the classification into four categories (Path, Manner, Caused-motion, and Neutral) allows the observation of apparent pattern differences regarding the frequency of appearance of various MOTION elements. In general, as shown in Table 4, Manner verbs are barely used, with a total of 5 occurrences, and their frequency contrasts with Neutral verbs (*go*, *move*, and *get*), which prevail with 29 cases. However, this difference is only perceived when examining the number of occurrences, as in the number of lemmas per category, Path, Manner, and Caused-motion verb lemmas share a similar distribution, albeit Neutral verbs are less varied in number.

To conclude the preliminary analysis of the sample, the metaphor evidence on MEs was calculated (see Table 4). Out of the 74 MEs identified, 94.59% are used figuratively. This is quite revealing in the sense that the use of MMEs is significantly more frequent than non-metaphorical MEs.

Table 4: Number of MEs and their metaphor-related use concerning their motion semantic role

	Path		Manner		Caused-motion		Neutral	
	Overall	MRWs	Overall	MRWs	Overall	MRWs	Overall	MRWs
Tokens	18	18	5	4	22	21	29	27
Lemmas	6	6	5	4	5	4	3	3

Moving on to the exploration of the impact of L1 typology, this variable has been examined considering participants' lexical diversity and production of MEs. In this sense, as shown in Table 5, the three cohorts present differences regarding the number of lexical and ME tokens, lemmas, diversity, and density concerning metaphorical and non-metaphorical uses.

Regarding their lexical diversity, L1 satellite-framed English L2 speakers (i.e., L1 speakers of Swedish, German, and Dutch) present the highest ratio per speaker of tokens –i.e., the total number of utterances–, and MME density– i.e., the number of MMEs divided by the number of ME tokens– in comparison to the rest of groups, who share similar results.

These speakers also showed a higher ratio of ME occurrences (both tokens and types) per speaker. Their average number of tokens per speaker is roughly double the production of the other cohorts. Besides, the average number of lemmas per speaker nearly doubles that of NSs and practically triples the output of the other L1 verb-

framed group. Concerning the other two groups, despite their more homogeneous production in tokens, the NS group's production rate practically doubles the number of ME lemmas employed by L1 verb-framed speakers.

Finally, considerable variations are also observed when examining ME diversity, i.e., the number of ME types divided by the number of ME tokens; and density –the number of ME tokens divided by the total number of tokens produced. As can be observed in Table 5, L1 English speakers' ME diversity surpasses that of the other two groups as opposed to L1 satellite-frame speakers' prevalence in ME density. Looking at inner differences in the above-mentioned measures across the three participant groups, L1 verb-framed speakers' proximity in their figures is remarkable.

In the case of MMEs, the group results yield a nuanced picture at first sight. However, some salient differences are detected among the three groups regarding the proportion of MEs tokens and lemmas per speaker. Although the three participant groups' metaphor density points to a pervasive role of metaphor in their speech, the greatest abundance is detected in the L1 satellite-framed speakers.

Table 5 shows an overview of the differences concerning learners' L1 typology. This includes measures of lexical production and MV realizations presented in raw data and by speaker (i.e., raw data divided by the total number of speakers).

Table 5: A summary of the differences regarding learners' L1 typology

			Satellite-framed (NSs)	L1 satellite-framed	L1 verb-framed
Lexical production	Tokens	Raw data	1,976	3,314	5,228
		By speaker	494	828.5	580.90
	MRWs	Tokens	271	510	697
		Density (in %)	13.71	15.39	13.33
MV realizations	Tokens	Raw data	14	34	26
		By speaker	3.5	8.5	2.89
	Lemmas	Raw data	8	11	12
		By speaker	2	2.75	1.33
	Diversity	Raw data	0.57	0.32	0.46
	Density	In %	0.71	1.02	0.50
	MMEs	Tokens	13	33	24
		Density (in%)	92.85	97.05	92.31

4.2. Objective b: To determine when, and with what discursive-pragmatic purposes, MMEs are employed by NSs and L2 learner speakers of English

To address this objective, the two activities that were performed in the seminars (pitch and discussion) were used to frame the context of MMEs production. Besides, the MME production has been classified according to the main Conceptual Metaphors identified in participants' speech. Thirdly, an analysis exploring the discursive-pragmatic functions that MMEs entailed was carried out following Christie's (2002) classification of L2 classroom registers. In general, it seems that participants resort to MMEs mainly to describe their learning experience in terms of MOTION. At first, five Conceptual Metaphors (CM) have been identified, although the use of two of them, EMOTION IS MOTION and LIFE IS A JOURNEY, are residual and determined directly by the immediate context in which they are uttered. Therefore, this analysis will focus exclusively on the three CMs more systematically found in the seminars:

LEARNING/COGNITION IS MOTION (knowledge as space): the target domain is used to typically profile the source domain of MOTION in academic English, where the learning process is constructed metaphorically as a path. The following example shows how thinking up ideas in the learning experience is constructed as arriving at the end of a path.

(3) *I will try to explain better how we **reached** that idea of creating this app what was exactly the payment* <ELO; L1=Spanish; L2 level=C1>

CAREER IS MOTION (professional life is a journey): the target domain of *career* is characteristically found in the pitches, where speakers talk about their professional experience. The following excerpt illustrates how *career* is understood as a horizontal path, a trajectory that one must take, and in which one must advance.

(4) *when they finish university students are usually told to **follow** a bunch of determined career (.) you should go either for consulting or banking they say my name is Marc and I consider myself as one as one of those students who decide to **get off** that road and choose by themselves* <EMH; L1=Spanish; L2 level=C2>

SPEECH ACTIVITY IS MOTION (speech as movement): speech activity is constructed metaphorically in terms of movement along a path that can be traveled back and forward. This CM likens *speech activity* to movement towards or away from the goal of communication (example 5), or to movement towards a speech act of the interaction in example 6. In this study, this CM is usually found when students provide feedback to their peers on their presentations realized:

(5) *you did right maybe you can __put__ that at the beginning [of your presentation] and make it a bit more flowing you know* <ENV; L1=Dutch; L2 level=C2>

(6) *that's why when I was five I thought I could make an association but my sister __brought__ me bad news I sucked at it* <EMS; L1=Spanish; L2 level=C2>

In figures, the sample consists of 66 MME utterances, employed in the two main activities carried out in the seminars in a balanced way: 30 MMEs occur in the pitch-delivery activity while 36 occurrences are found in constructive feedback discussion. Table 6 provides detailed information regarding the relationship between conceptual frames and the tasks performed.

Table 6: A classification of CM constructions regarding the nature of the task.

Conceptual Metaphor	Element of movement	PITCH	DISCUSSION		Total
			Instructional	Regulative	
LEARNING/COGNITION IS MOTION (n = 10)	Path	2	4	-	6
	Manner	-	1	-	1
	Caused-motion	2	1	-	3
	Neutral	-	-	-	-
CAREER IS MOTION (n = 27)	Path	9	1	-	10
	Manner	-	-	-	-
	Caused-motion	5	1	-	6
	Neutral	9	1	1	11
SPEECH ACTIVITY IS MOTION (n = 30)	Path	-	1	-	1
	Manner	-	3	-	3
	Caused-motion	3	8	-	11
	Neutral	-	3	11	14
Total		30	24	12	66

However, a closer look at the data soon reveals noteworthy differences among the prevailing CMs in both activities. For instance, in pitches, most occurrences are Neutral or Path verbs structured via CAREER IS MOTION. In turn, discussions –where speakers give feedback on the pitches– are dominated by CM realizations where the conceptualization of the learning experience is described as SPEECH ACTIVITY IS MOTION and characterized by a prevalence of Neutral verbs. The third CM (LEARNING/COGNITION IS MOTION), with a predominance of Path verbs, is distributed somehow uniformly across both activities.

Besides, within the discussion activity, MMEs seem to be employed with two distinct purposes that correspond to the two main registers detected in the L2 (Christie, 2002) and CLIL (Llinares et al., 2012) classroom settings: to provide feedback or construct knowledge (i.e., instructional register) and to manage group work (i.e., regulative register). In general, as shown in Table 7, the dialogic interaction is characterized by unbalanced register usage, where instructional register surpasses regulative functions. In this regard, it is quite salient that most Neutral verbs are devoted to controlling the group, whereas Caused-motion, Manner, and Path verbs are restricted to the instructional register.

Table 7: An overview of conceptual frames concerning learners' L1 typology

| | L1 typology | | | |
Conceptual Metaphor	Satellite-framed (NSs)	satellite-framed	verb-framed	N
LEARNING/COGNITION IS MOTION	2	5	3	10
CAREER IS MOTION	8	6	13	27
SPEECH ACTIVITY IS MOTION	2	22	5	29
Total	**12**	**33**	**21**	**66**

Moreover, L1 verb-framed speakers' prevailing use of MMEs occurs in the pitches, where CAREER IS MOTION is primarily constructed given the activity instructions –i.e., presenting their career path. In contrast, there is a notable production of MMEs under the construction of SPEECH ACTIVITY IS MOTION by L1 satellite-framed L2 speakers of English in constructive feedback discussion contexts, where, again, the task typology is expected to drive students to somewhat structure their MMEs via this CM.

Table 8: Types of interaction and register of use regarding speakers' L1 typology

| | Pitch | Discussion | | |
L1 typology		Instructional register	Regulative register	N
Satellite-framed (NSs)	6	6	-	6
Satellite-framed	10	14	9	23
Verb-framed	14	4	3	7
Total	**30**	**24**	**12**	**36**

Finally, Table 8 provides further information on how speaker groups govern these interactions. As is shown, MME occurrences seem to be somehow equally distributed across pitch-delivery and feedback-discussion interactions. However, L1 typology differences are perceived when considering the activity in which and the function with which MMEs are employed. Regarding activity typology, whereas MMEs are extensively employed in pitch-delivery interaction by the verb-framed speakers, satellite-framed speakers abound in their use of MMEs in constructive feedback discussion interaction. As for their purpose of use, within the discussion activity, while the three groups employ MMEs with an instructional aim, L1 English speakers do not seem to resort to MEs to organize group-work dynamics (i.e., with a regulative function).

5. Discussion: motion verbs in context

The present study was designed to analyze MME occurrence in a specific academic setting: EMI seminars on marketing and business. As shown in the literature review, metaphor is pervasive in academic language, where it plays a key role in the description of abstract objects and processes. MMEs are particularly important, as MOTION is a frequent source domain (Ibarretxe-Antuñano & Caballero, 2014). As previously studied (Özçalışkan, 2005), typological differences persist in MMEs and, therefore, metaphorical motion can vary greatly across different languages and genres (Caballero, 2017). However, despite the abundant literature on MEs and the demonstrated impact of figurative language in contexts of English as Lingua Franca (EFL) (MacArthur & Littlemore, 2011; MacArthur et al., 2015; MacArthur, 2016b or Alejo-González, 2021) or English as a Foreign Language contexts (see MacArthur, 2010, or Nacey, 2017, for a review), in the particular case of EMI, to our knowledge, this phenomenon has not received much attention.

The first objective of this paper was to examine the prevalence of MEs in academic EMI seminars and the impact inter-typological differences may have on the production of MMEs. This objective was explored via two research questions. Research question 1 dealt with the identification of MME employment in EMI learner discourse. In light of the results, it can be stated that MEs are employed at a low rate across the seminars.

First, speakers' discourse is characterized by a small, shifting variety of MEs and a clear predominance of M1 verb usage. Given the purpose of the seminars, i.e., to deliver a business pitch with which students need to differentiate themselves from their peers, it would have been expected that students would resort to some linguistic strategies such as the use of figurative language, to convey abstract ideas, and/or M2, to spark creativity in their task performance. However, this assumption has only been partially confirmed: although metaphorical language and MEs are somewhat present in speakers' speech, no evidence of M2 realizations has been found.

There may be several possible explanations for the low use of MEs, in general, and the complete absence of M2, in particular. First, these findings support the idea that speakers, primarily L2 learners with varying levels of English proficiency communicating in an EMI environment, need to make themselves understood in the seminars. This may result in students with the highest proficiency level adapting their speech, avoiding the inclusion of more abstract or creative language that might hinder their peers' comprehension. Similarly, NSs seem to abandon some of their rhetorical style characteristics in the use of MMEs. The less varied and frequent MME usage by English NSs may be an accommodation strategy to increase efficiency in communication with non-native speakers (NNSs), which is in line with Communication Accommodation Theory (CAT), as speakers can use accommodative strategies and converge with their interlocutors in order to be clearly understood, to maintain face and relationships, especially in intercultural groups –see Gallois et al. (2005) for an overview on CAT. In fact, when CAT has been applied to interactions between NSs and NNSs, NSs seem to use convergence strategies and engage in the so-called 'foreigner talk', with shorter and simpler sentences, slower pace and articulated pronunciation (Zuengler, 1991). Therefore, a less varied and frequent use of MMEs by English NSs may be considered an accommodative strategy to increase efficiency in communication with non-native fellows.

A second rationale may be related to the lecturer's role in carrying out the seminars. The instructor's feedback on every student's pitch and monitoring of the correct development of the seminars is one of the primary sources of input in the classroom. At first, it seemed plausible that students would mirror their instructor's speech, especially when providing feedback and regulating groupwork. Lecturer's use of MMEs has been explored to shed light on this question. In comparison to students' production, lecturer's speech presents substantial differences: (i) a higher ratio of ME usage (11% vs 4.10%), (ii) a more varied usage of MEs (33 vs 19 lemmas), (iii) some evidence of Motion2 utterances, and (iv) lower employment of MMEs (66% vs 93.57%). Therefore, these data would allow us to reject this second explanation. However, further research in this regard is needed to explore this potential explanation.

Finally, a third factor that could explain the low ME occurrence is that MOTION might not be a predominant source domain in the specific context under study. The findings of the current investigation contribute to the need highlighted in other studies (Kövecses, 2002; Semino, 2005) to describe the metaphors used in the academic context. In this respect, it would be relevant to explore not only the extent to which other source domains are present in the corpus, but also how factors relating to the specific academic context such as student's linguistic background, topic covered (i.e., *aboutness*), nature of the task, and degree of interaction may determine the inclusion of MEs in EMI spoken discourse.

Research question 2 addressed the analysis of the identification of inter-typological differences in MME employment, and some differences have been recognized in this respect. The literature on motion events remarks that speakers tend to organize these events around a specific semantic component, resulting in two different lexicalization patterns (satellite-framed and verb-framed languages) with varying narrative styles (Slobin, 1996, 2004). Thus, L1 verb-framed speakers' employment of MEs was expected to differ from the other two groups, which shared the same L1 typology frame (Ibarretxe-Antuñano & Caballero, 2014). Furthermore, within the L1 satellite-verb category, it was also expected to find differences between NS and NNSs' speech insofar as L1 English speakers were expected to use a higher number of MMEs. However, minor and non-systematical differences have been found.

There may be several reasons behind this finding. A plausible interpretation is that the strongest typological differences in learners' rhetorical style are sort of 'blurred' in the interaction in the context of the classroom. According to Filipović & Hawkins (2019), bilinguals tend to maximize the use of common grammatical and lexical representations in the two languages in proportion to environmental factors. In this case, students seemed to avoid M2 verbs, presenting similar usage of MMEs. The interaction among peers in the classroom may be fostering to favor this behavior. In this sense, our study presents important implications for the field of motion events typology and a call to more research in which motion events are measured in real interaction, with different types of interlocutors (e.g., bilingual and monolingual). Moreover, the high levels of metaphor density but the lower ME occurrence in students' speech might indicate that students did not exploit metaphor to their full potential in seminars (cf. Alejo-González, 2022).

The second objective concerned the exploration of the pragmatic-discursive purposes that the realizations of MMEs fulfilled, and the factors contributing to their employment, which was specified into two research questions. Regarding research question 3, that is, the exploration of the purposes with which the source domain of MOTION was employed, it can be argued that (i) EMI students mainly use MMEs to talk about the learning experience in terms of three conceptual frames (LEARNING/COGNITION IS MOTION, CAREER IS MOTION and SPEECH ACTIVITY IS MOTION), (ii) the employment of these target domains is dependent on seminar activities, which seem to regulate the local peaks of metaphor density in both monologic and dialogic interaction (cf. Low et al., 2008; Alejo-González, 2021): CAREER IS MOTION conceptualizations predominate in pitches, while MMEs in the discussion context are structured via SPEECH ACT IS MOTION. Finally, in relation to whether the L1 typology of participants has any impact on the pragmatic-discursive goals (research question 4), the results seem to somehow relate the inclination to one target domain to speakers' L1 typology.

At first sight, MOTION conceptual frames seemed somehow related to speakers' L1 typology afresh: L1 English and verb-framed speakers prefer organizing their speech towards CAREER IS MOTION, whereas L1 satellite-framed speakers opt for SPEECH ACTIVITY IS MOTION. However, this disparity may be related to the contexts where MMEs are employed: L1 satellite-framed speakers mainly resort to MMEs in constructive feedback discussion activities, where they are asked to give feedback on their peers' performance. In contrast, L1 verb-framed speakers' MMEs occurrences mostly occur in pitch-delivery, in which students need to summarize their career trajectory. Considering these findings, it can be argued that the activity performed seems to play a more determinant role than speakers' mental lexicalization patterns for metaphorical conceptualizations to be realized.

Overall, findings on the pragmatic-discursive purposes of MMEs illustrate that EMI students use MMEs for evaluative purposes in academic talk, as demonstrated for lecturer's discourse (Low et al., 2008; Beger, 2011). However, regulative functions performed by EMI students are also recognized. The presence of the regulative register, generally unexpected from students, appears to be fostered by the type of activity performed: students are asked to work on their own, and they need a sort of internal group management to reach their goal. This evidence tallies with current research on CLIL classroom registers at the primary education level (Llinares et al., 2012), where students use the L2 to both regulate peer work and learn while creating new knowledge. This finding seems, therefore, to support the synergies between both content-based practice areas. All in all, considering the main findings of this paper, it may be noted that speakers' L1 typology may have some impact on metaphorical and non-metaphorical MEs usage in the specific context of EMI seminars, but the influence of other contextual factors such as task typology and the discourse functions CMs underlined in the topic of the assignment should not be disregarded.

6. Conclusion

This article has examined the verb use of MEs in a spoken academic context of EMI. The use of MMEs by 17 participants has been analyzed, finding some evidence of MMEs realizations and, in general, limited use of the domain of MOTION when talking about marketing and business. The analysis has provided some evidence that in the specific context of EMI seminars (i) individual variables (L1 typology of the different speakers, lecturer's input) do not seem to have a determining impact on the employment of MMEs, while (ii) contextual factors (the activities to be performed) have been shown to have a more salient role in the use of MMEs. Although it is based on a small sample of participants, the current study aims to contribute to extending

our knowledge of how EMI students behave linguistically in seminar talk. In this regard, ME realizations seem to adapt to the context of the seminar in which they are employed. Although ME usage is limited, motion is observed to be used by EMI students with two different discursive aims: for regulative and evaluative functions.

These results suggest that ME typologies, that is, the way speakers organize the salient information they pay attention to in discourse, is a key aspect to be explicitly taught about in EMI contexts. It is not just a question of learning certain verb items in metaphorical contexts but of using them appropriately to capture the speakers' own conceptualizations. Future research may shed some light on how to apply and implement these results in classroom settings.

Several limitations need to be acknowledged. First, the current investigation has only analyzed MME occurrences in students' speech. Therefore, an exploration of the lecturer's speech, with a key role in giving feedback, regulating groupwork and monitoring the activities in the classroom, should also need to be considered. In this sense, it would be interesting to compare the kind of language used by both interlocutors' roles and explore to what extent learners 'recycle' lecturer's linguistic expressions and mental conceptualizations. In addition, the scope of the study is limited by the number of participants. A more comprehensive sample including instructors and learners with different L1s, for instance, may contribute to further research. Moreover, the findings in this study only address verb usage, implying an overlook of the relevance of motion in this spoken discourse. Hence, further research should include other parts of speech (i.e., particles). Finally, these findings may not apply to other EMI contexts dealing with, for example, written discourse, discussion of different topics, distinct activity typology, or varying degrees of interaction. More research is required to better understand the interplay between metaphor and L2 academic discourse.

Acknowledgements

7. References

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