Wojciech Lewandowski* and Mario Bisiada

Did he lead monologues or *did he talk to himself?* How typological distance between source and target language influences the preservation of metaphorical mappings in translation

https://doi.org/10.1515/lingvan-2024-0126
Received June 18, 2024; accepted May 20, 2025; published online August 6, 2025

Abstract: Speakers across the world describe a wide range of target domains (e.g., time, emotions) relying on similar metaphorical mappings that use motion as the source domain (ABSTRACT CONCEPT IS A MOVING ENTITY: *seven o'clock is approaching*; ABSTRACT CONCEPT IS A LOCATION: *rush into joy*). However, the extent to which these metaphorical mappings are preserved in translations remains largely unexplored. Our study examined metaphorical motion descriptions in novels written in German, Polish, and Spanish (150 descriptions per language) along with their translations into a language from either the same (intra-typological: German vs. Polish) or a different typological group (inter-typological: German vs. Spanish). We found that while translations generally retained the metaphorical mappings of the source language – regardless of transition type – some of the conceptual metaphors were lost in translation. Notably, intra-typological translations showed greater rates of preservation of the original mappings compared to inter-typological ones – suggesting an effect of language type. Our findings also highlight degree of novelty as an important factor affecting translation outcomes, with novel metaphors being more likely to be preserved than conventionalized ones.

Keywords: metaphorical mappings; metaphorical motion; translation; satellite-framed; verb-framed

1 Introduction

Conceptual metaphor plays a crucial role in shaping our thought (Lakoff and Johnson 1980), and its ubiquity in language presents a significant challenge in translation (Schäffner 2016; Toury 2012). One potential factor assumed to influence this process is typological distance between source and target language (van den Broeck 1981). However, the impact of typological features on metaphor translation remains largely underexplored. A particularly pervasive instance of conceptual metaphor across typologically diverse languages is metaphorical motion, which structures a broad range of target domains as spatial movement, drawing on similar metaphorical mappings (i.e., ABSTRACT CONCEPT IS A MOVING ENTITY: *seven o'clock is approaching*; ABSTRACT CONCEPT IS A LOCATION: *rush into joy*). In this study, we analyzed metaphorical motion descriptions from literary texts originally produced in German, Polish, and Spanish and their translations into either a language of the same typological group (German vs. Polish, both satellite-framed) or a different one (satellite-framed German vs. verb-framed Spanish). Our primary question was whether preserving the metaphorical mappings of the source language would be easier in translations into a typologically similar language rather than a typologically different one.

***Corresponding author: Wojciech Lewandowski**, Universität Potsdam, Potsdam, Germany, E-mail: woj.lewandowski@gmail.com
Mario Bisiada, Pompeu Fabra University, Barcelona, Spain

1.1 Metaphorical motion in native language contexts

Metaphorical motion refers to a conceptual mapping from the source domain of movement in physical space (e.g., *running*, *falling*) to more abstract target domains such as time (e.g., *time runs*) or emotions (e.g., *fall in despair*; Kövecses 2005; Lakoff and Johnson 1980). Most prior research has focused on the expression of metaphorical motion in native language contexts, suggesting crosslinguistic similarities in how speakers employ spatial motion to structure abstract concepts. This research found that both child and adult speakers across various languages describe a comparable range of target domains (e.g., time, emotions, ideas) relying on two primary metaphorical mappings: abstract concepts as moving entities (e.g., TIME IS A MOVING ENTITY for *hours slip by*) and abstract concepts as static locations (e.g., IDEAS ARE LOCATIONS for *flip into happiness*). This pattern held true across a diverse set of languages from different genetic affiliations, including Slavic (e.g., Polish), Germanic (e.g., English, German), Romance (e.g., Spanish), and Turkic (e.g., Turkish; Lewandowski and Özçalışkan 2025; Özçalışkan 2003; Wilson 2005), highlighting the robustness of these findings.

These crosslinguistic similarities were coupled with systematic differences in how metaphorical events were lexicalized, following a classification of languages into two categories: satellite-framed (S-languages; e.g., English, German, Polish) and verb-framed (V-languages; e.g., Spanish, Turkish, Japanese; Talmy 2000). S-languages, which tend to have rich inventories of directional elements (e.g., particles, prefixes) and manner verbs, typically express manner (i.e., the way of moving; e.g., *flying*, *running*, *crawling*) in the main verb and path (i.e., the trajectory of the movement; e.g., *into*, *up*, *across*) in an adjacent satellite within a single clause (e.g., *the idea ran across my mind*). In contrast, V-languages, which generally lack specialized path satellites and have more limited manner verb lexicons, usually place path in the main verb and manner in verb-external adjuncts (e.g., in Spanish, *la idea me atravesó rápidamente la mente* 'the idea rapidly crossed my mind'). At the same time, V-language speakers rarely include manner in their metaphorical motion descriptions, likely due to a greater cognitive load involved in processing complex constructions that combine a main verb with a subordinated adjunct, especially when compared to the more compact structures typical of S-languages (Lewandowski and Özçalışkan 2023; cf. Slobin 1997, 2004).

Overall, research on metaphorical motion in native language contexts provided evidence for strong similarities in the target domains and metaphorical mappings that structure abstract concepts through motion, alongside systematic differences in the lexicalization of the source domain – reflective of a binary split between S-languages, which express both path and manner information within a single clause, and V-languages, which tend to convey path-only information.

1.2 Metaphorical motion in translated language contexts

Research on metaphorical motion events in translated language contexts is relatively limited compared to studies on native productions, with the few existing studies mainly focusing on the lexicalization of the source domain (i.e., Cifuentes-Férez 2014; Lewandowski and Özçalışkan 2024). These studies – all of which focused on literary texts – found evidence for close adherence to the typological structure of the target language: when transitioning from S-languages, which consistently include manner, to V-languages, which commonly omit manner (e.g., from German to Spanish), translators reduced the amount of manner information, while the opposite was true for transitions from V- to S-languages (e.g., from Spanish to German), which often involved the addition of manner information that was absent from the source text.

However, to date, no studies have examined whether typological differences between source and target language affect the alignment of metaphorical mappings between original and translated texts, particularly in transitions between languages from the same versus the opposite typological affiliation.

Overall, research on metaphorical motion in translated language contexts remains scarce, primarily targeting the lexicalization of the source domain, with a critical gap in our understanding of how language type influences the preservation of metaphorical mappings in translation – highlighting this area as an important research avenue warranting further investigation.

1.3 Current study

In this study, we focused on metaphorical motion descriptions in novels originally written in German, Polish (both S-languages), and Spanish (a V-language) and their translations into a language from either the same (intra-typological: German vs. Polish) or a different typological classification (inter-typological: German vs. Spanish).

The languages in our study serve as representative examples of V-languages (i.e., Spanish) and S-languages (i.e., German, Polish) in their expression of metaphorical motion (Lewandowski and Özçalışkan 2023; cf. Lewandowski 2018, 2021). These languages also reflect a broader classification of motion event typology (Talmy 2000), where languages such as English, Danish, Russian, or Hungarian group with German and Polish (i.e., S-languages) and languages such as French, Arabic, Japanese, or Turkish align with Spanish (i.e., V-languages). As such, these languages offer an ideal framework for observing both inter-typological (i.e., German vs. Spanish) and intra-typological (i.e., German vs. Polish) variability in the expression of metaphorical events in source versus target language, which could potentially be generalized to a broader range of the world's languages.

We asked two questions. First, we asked whether language type would influence the preservation of source-language metaphorical mappings in translated texts. We predicted that intra-typological shifts (i.e., German vs. Polish, both S-languages) would preserve source-language mappings at greater rates than inter-typological shifts (i.e., S-language German vs. V-language Spanish). This prediction is consistent with earlier work suggesting that typological similarities between source and target language may facilitate the translation of conceptual metaphors (van den Broeck 1981).

Second, we asked whether degree of novelty would influence the preservation of source-language metaphorical mappings in translated texts. We predicted that novel metaphorical expressions would display greater preservation of source-language mappings compared to conventionalized ones, based on two assumptions: (i) novel metaphors, being less anchored in established linguistic norms, offer more structural flexibility in translation; and (ii) novel metaphors are more central to the interpretive functions of literary texts (Steen 1994; Toury 2012).

Overall, our study offers a much-needed comprehensive account of variation patterns in metaphorical mappings between source and target language across multiple levels of typological comparisons (i.e., intra-typological, inter-typological) and types of metaphorical expressions (i.e., novel, conventionalized), broadening our knowledge of the translation of conceptual metaphors within the literary genre.

2 Methods

2.1 Sample

Our sample included 45 novels originally written in German, Polish, and Spanish (15 per language), along with 60 translations into either a language from the same typological group (German-to-Polish: n = 15; Polish-to-German: n = 15) or a different one (German-to-Spanish: n = 15; Spanish-to-German: n = 15). To capture a broad range of metaphorical patterns, all novels were published within the last five decades (1970–2020), with three novels per decade in each language. Our selection aimed to reflect the geographical diversity of these languages, covering diverse regions where they are spoken natively (Argentina, Austria, Chile, Colombia, Germany, Mexico, Nicaragua, Poland, Spain, Switzerland). We also ensured gender diversity by including both male and female writers (authors: 15 females, 30 males; translators: 34 females, 29 males). A complete list of original and translated texts can be found in Appendices A and B, respectively.[1]

1 The total number of translators is 63, as three of the 60 translated texts (the Spanish translation of Sebald 1995; the German translation of Marsé 1972; and the German translation of Tokarczuk 2014) were each translated by two translators.

2.2 Data collection

Following earlier work (Lewandowski and Özçalışkan 2023, 2024), an experimenter fluent in German, Polish, and Spanish randomly opened each original book ten times using a random number generator for page selection. The experimenter recorded the first metaphorical motion description identified at each opening, resulting in a total of 450 original descriptions (150 per language). The experimenter then extracted the corresponding translation for each original description, yielding 600 translated descriptions (150 per language pair). This sampling procedure generated a dataset of 1050 descriptions across original and translated texts.

Consistent with established norms in the field (e.g., Bisiada 2024; Steen 2016), we developed clear criteria for metaphor identification to ensure consistency across languages. A metaphorical motion description was defined as either imaginary movement of an abstract entity (e.g., *fear crawled into his heart*) or imaginary movement of a physical entity in relation to an abstract location (e.g., *she came out of a difficult relationship*). The identification process consisted of two steps. First, we identified a motion verb, defined as a verb denoting a change of location in space (e.g., *walk*, *jump*, *cross*, *enter*), consistent with earlier work (Slobin and Hoiting 1994; Talmy 2000). Second, we assessed whether the motion verb, in its textual context, conveyed (i) a basic meaning of movement in physical space or (ii) an abstract meaning of imaginary movement in conceptual space. Descriptions in which the verb referred to physical movement were classified as nonmetaphorical and excluded from further analysis, while those conveying abstract, metaphorical movement were categorized as metaphorical and recorded for further analysis.

2.3 Data coding

First, we coded each original description for metaphorical mapping (e.g., TIME IS A MOVING ENTITY for *the big day arrived*; EMOTIONS ARE LOCATIONS for *she fell in love*; etc.), following earlier work (Lewandowski and Özçalışkan 2025). Each translated description was then coded for translation strategy: as "preserved" if it retained the metaphorical mapping of the source language (e.g., German original: *zu einer Überzeugung gelangen* 'reach a conviction' vs. Polish translation: *dojść do przekonania* 'walk up to a conviction'); or as "lost" if did not retain the original mapping. Metaphorical mappings that were lost were further categorized in three types, namely: (i) replacement with a nonmetaphorical expression (e.g., German original: *die Stimme drang aus der Ferne* 'the voice penetrated from afar' vs. Spanish translation: *a lo lejos se oyó un grito* 'a scream was heard in the distance'); (ii) replacement with a different metaphorical mapping (e.g., Polish original: *pada nowa myśl* 'a new idea falls' vs. German translation: *er hat eine neue Idee* 'he has a new idea'); or (iii) omission (e.g., Spanish original: *caer en saco roto* 'fall on deaf ears [lit. into a broken bag]', omitted in the German translation).

Next, we coded each original description for degree of novelty. For the purpose of this study, we relied on a binary classification between conventionalized and novel metaphorical expressions. Conventionalized expressions were defined as metaphorical motion descriptions that are entrenched in a speech community and are part of standard language use (e.g., the well-established collocation *reach a conclusion*). In contrast, novel expressions were defined as more creative instances of metaphorical motion that extend beyond the established repertoire of the source language (e.g., *limp from error to error*, creatively depicting clumsy progression through mistakes), in line with earlier work (e.g., Boeynaems et al. 2017). To provide clear operational guidelines, we adopted a dictionary-based approach. A metaphorical motion description was classified as conventionalized if it was listed in the standard reference dictionaries of the source language (i.e., *Duden Online – Wörterbuch der deutschen Sprache*, *Słownik Języka Polskiego PWN*, and *Diccionario de la lengua española – Real Academia Española*) – whether as a separate verb meaning (e.g., German *vorwerfen* 'reproach [lit. throw forward]', Polish *znieść* 'abolish [lit. carry down]', and Spanish *saltar(se)* 'skip [lit. jump]'); a collocation (e.g., German *zu Ende gehen* 'come [lit. go] to an end', Polish *wyciągać wnioski* 'reach [lit. pull out] conclusions', and Spanish *caer en duermevela* 'fall into light sleep'); or an idiomatic or semi-idiomatic expression (e.g., German *der Sache auf den Grund gehen* 'get [lit. walk] to the bottom of the matter', Polish *ruszyć głową* 'think [lit. move one's head]', and Spanish *echar bronca* 'make angry [lit. throw ruction]'). Metaphorical motion descriptions that were not codified in standard reference

dictionaries were classified as novel. While acknowledging that this method does not fully capture the nuances of the novelty versus conventionality continuum in metaphorical expressions, it offered a replicable solution, ensuring crosslinguistic consistency.

Reliability was assessed by two independent coders, blind to the aim of our study, who coded 20 % of the data (i.e., three randomly selected books from each of the four language transitions). Inter-coder agreement was 94 % for metaphorical mappings, 96 % for translation strategy, and 84 % for degree of novelty.

2.4 Data analysis

To examine the effect of language type and degree of novelty on the preservation of metaphorical mappings in translation, we conducted two sets of analyses:

- *Effect of language type*: We computed the frequency of preserved versus lost mappings for each language pair and compared preservation versus loss rates between intra-typological (German vs. Polish) and inter-typological (German vs. Spanish) transitions using a chi-square test of independence.
- *Effect of degree of novelty*: We calculated the frequency of preserved versus lost mappings for novel and conventionalized metaphors across all language pairs and compared preservation versus loss rates between these two categories using a chi-square test of independence.

The dependent variable in our study was the translation outcome, categorized as either preserved or lost. The independent variables were typological transition (inter-typological vs. intra-typological) and degree of novelty (novel vs. conventionalized). Since all variables were categorical, we employed chi-square tests of independence to analyze the associations between them. This statistical approach is suitable for examining relationships between categorical variables and does not assume normality in data distribution (McHugh 2013).

3 Results

3.1 Effect of language type on the translation of metaphorical mappings

Starting with language type, translated texts included a higher proportion of metaphorical mappings that were preserved compared to those that were lost in translation, irrespective of typological shift (intra-typological: 75 % vs. 25 %; inter-typological: 65 % vs. 35 %). These results were consistent across all language combinations, both within intra-typological (German-to-Polish: 71 % vs. 29 %; Polish-to-German: 79 % vs. 21 %) and inter-typological contexts (German-to-Spanish: 61 % vs. 39 %; Spanish-to-German: 69 % vs. 31 %). Thus, our results indicate a predominant trend of preserving metaphorical mappings, with a less pronounced tendency for some mappings to be lost in translation. Critically, we found a significant association between preservation rates and language type, $\chi^2(1, N = 600) = 8.37$, $p = 0.003$. As predicted, intra-typological shifts showed greater rates of preserved mappings

Table 1: Mean proportion of metaphorical mappings preserved or lost by language type (standard deviation in parentheses).

	Preserved	Lost
Intra-typological	**0.75 (0.20)**	**0.25 (0.16)**
German-to-Polish	0.71 (0.17)	0.29 (0.17)
Polish-to-German	0.79 (0.14)	0.21 (0.14)
Inter-typological	**0.65 (0.21)**	**0.35 (0.18)**
German-to-Spanish	0.61 (0.15)	0.39 (0.15)
Spanish-to-German	0.69 (0.19)	0.31 (0.19)

compared to inter-typological ones (75 % vs. 65 %), while, conversely, inter-typological transitions experienced higher losses than intra-typological ones (35 % vs. 25 %); see Table 1.

The most common translation procedure by which the original mappings were lost in translation involved replacing the original expression with a nonmetaphorical paraphrase (54 % of instances; e.g., German original *Selbstgespräche führen* 'lead monologues' vs. Polish translation *mówić do siebie* 'talk to oneself'; Polish original *plusk wody dochodzi* 'the splash of water approaches' vs. German translation *das Plätschern des Wassers hören* 'hear the splash of water'; German original *eine Frage stellen* 'ask [lit. put] a question' vs. Spanish translation *preguntar* 'ask'; Spanish original *soltar un gemido* 'drop a groan' vs. German translation *stöhnen* 'groan').

The second most frequent loss occurred when the original mapping was substituted with a different metaphor that draws on a distinct source domain (41 % of instances). The most common of these replacements involved the source domain of possession, accounting for 26 % of cases within this category (e.g., German original *in Schwierigkeiten geraten* 'get into troubles' vs. Polish translation *mieć kłopoty* 'have troubles'; German original *auf einen Einfall kommen* 'have [lit. come to] an idea' vs. Spanish *tener una ocurrencia* 'have an idea'), followed by static location (22 % of cases; e.g., German original *zur Ekstase treiben* 'drive to ecstasy' vs. Spanish translation *encontrarse en pleno éxtasis* 'to be located in full ecstasy'; Spanish original *llegar al poder* 'arrive to power' vs. German translation *an der Macht sein* 'to be in power') and creation (19 % of cases; e.g., German original *in Begeisterung geraten* 'get into enthusiasm' vs. Spanish translation *producir entusiasmo* 'produce enthusiasm'; Spanish *echar bronca* 'make angry [lit. throw ruction]' vs. German translation *Ärger machen* 'make anger'). Other less common source domains included surface contact (e.g., Polish original *prowadzić wykłady* 'give [lit. lead] lectures' vs. German translation *Vorträge halten* 'hold lectures'), vision (e.g., German translation *Beziehungen eingehen* 'enter relationships' vs. Spanish translation *enfocar relaciones* 'approach [lit. focus on] relationships'), writing (e.g., German original *eine Frage stellen* 'ask [lit. put] a question' vs. Polish translation *odnotować pytanie* 'note a question'), and control (e.g., Polish original *zapada cisza* 'silence falls' vs. German translation *die Stille herrscht* 'silence reigns').

The omission of the original mappings was rare, accounting for only 5 % of instances; see Table 2, for excerpts from original and translated texts that further illustrate each of the translation strategies across the two types of transition.

3.2 Effect of degree of novelty on the translation of metaphorical mappings

Turning now to degree of novelty, original texts displayed a higher frequency of conventional metaphorical expressions (61 %) compared to novel ones (39 %), a pattern that was consistent across all language combinations (German-to-Polish: 59 % vs. 41 %; Polish-to-German: 55 % vs. 45 %; German-to-Spanish: 59 % vs. 41 %; Spanish-to-German: 69 % vs. 31 %), highlighting a predominance of conventional metaphors involving motion as the source domain in the literary genre. Importantly, however, preservation rates differed significantly based on degree of novelty $\chi^2(1, N = 600) = 36.76$, $p < 0.001$. As predicted, novel metaphors preserved source-language mappings to a greater extent compared to conventional metaphors (86 % vs. 57 %), whereas conventional metaphors experienced higher losses than novel ones (43 % vs. 14 %); see Table 3.

4 Discussion

In this study, we asked whether the preservation of metaphorical mappings in literary translations would vary depending on language type and degree of novelty of metaphorical expressions. Our analysis of metaphorical motion descriptions in three structurally distinct languages – German, Polish, and Spanish – showed a general tendency to maintain the original mappings of the source language, with some mappings being lost in translation. The pattern of losses was more pronounced for inter-typological than intra-typological shifts, and for conventionalized metaphorical expressions compared to novel ones.

Table 2: Examples of translation strategies observed in our dataset across intra-typological and inter-typological transitions.

Intra-typological transition	
Preservation	
German original … *Bäche aus Sand zogen sich zwischen den Hügeln* … '… streams of sand pulled themselves between the hills …' (Ende 1979: 106)	Polish translation … *strumienie piasku ciągnęły się pomiędzy pagórkami* … '… streams of sand pulled themselves between the hills …' (p. 118)
Polish original *Przez głowę przeleciały jej setki zachowań* … 'Hundreds of behaviors flew through her head …' (Bart 2008: 40)	German translation *Hunderte Arten, wie sie sich verhalten könnte …, jagten ihr durch den Kopf* … 'Hundreds of ways she might behave … raced through her mind …' (p. 75)
Nonmetaphorical paraphrase	
German original … *habe er Selbstgespräche geführt* … '… he led monologues …' (Böll 1974: 69)	Polish translation … *mówił do siebie* … '… he talked to himself …' (p. 76)
Polish original *Z tyłu dochodził go plusk wody.* 'The splash of water walked to him from behind.' (Pilch 1995: 46)	German translation *Hinter sich hörte er das Plätschern des Wassers*. 'He heard the splashing of water behind him.' (p. 101)
Different conceptual metaphor	
German original … *sei der junge Herr Eugen in Schwierigkeiten geraten.* '… the young Mr. Eugen got into trouble.' (Kehlmann 2005: 244)	Polish translation … *pan Eugeniusz ma kłopoty.* '… Mr. Eugen has problems.' (p. 126)
Polish original … *ciszy, jaka zapadła na sali* … '… silence that fell in the room …' (Bart 2008: 106)	German translation … *Stille, die im Saal herrschte* … '… silence that reigned in the room …' (p. 192)
Omission	
German original … *in Konflikt geriet* … 'he got into conflict …' (Böll 1974: 22)	Polish translation omitted in translation
Polish original *Bo jeśli o mnie chodzi* … 'Because when it comes to me …' (Tryzna 1995: 66)	German translation omitted in translation
Inter-typological transition	
Preservation	
German original … *wenn die Perser gerade eintauchen in den tiefsten Schlaf.* '… when the Persians are just dipping in their deepest sleep.' (Sebald 1995: 97)	Spanish translation … *cuando los persas se sumergen en el sueño más profundo.* '… when the Persians are dipping in their deepest sleep.' (p. 57)
Spanish original … *hundiéndose en sus olores.* '… sinking into their scents.' (Allende 1982: 30)	German translation … *versenkte sich in ihre Gerüche.* '… she sank into their scents.' (p. 50)
Nonmetaphorical paraphrase	
German original … *die Schätzungen gingen auseinander* … '… the estimates walked apart …' (Kehlmann 2005: 199)	Spanish translation … *las estimaciones diferían* … '… the estimates differed …' (p. 148)
Spanish original *Corso soltó un gemido* … 'Corso dropped a groan …' (Pérez-Reverte 1993: 198)	German translation *Corso stöhnte.* 'Corso groaned.' (p. 271)
Different conceptual metaphor	
German original … *den trieb es zur Ekstase* … '… it drove him to ecstasy …' (Süskind 1985: 287)	Spanish translation … *se encontraba en pleno éxtasis* … '… he was located in full ecstasy …' (p. 93)
Spanish original … *me entró una urgencia enorme de estar junto a ella.* '… a huge urge to be with her entered me.' (Restrepo 2004: 101)	German translation … *und hatte das dringende Bedürfnis bei ihr zu sein.* '… and I had the urgent need to be with her.' (p. 202)

Table 2: (continued)

Inter-typological transition	
Omission	
German original	Spanish translation
None observed	None observed
Spanish original	German translation
Todas nuestras protestas cayeron en saco roto. 'All our protests fell in a broken bag [fell on deaf ears]' (Zafón 2001: 172)	omitted in translation

Table 3: Mean proportion of metaphorical mappings preserved or lost by degree of novelty (standard deviation in parentheses).

	Preserved	Lost
Conventional	**0.57 (0.25)**	**0.43 (0.25)**
German-to-Polish	0.57 (0.25)	0.43 (0.25)
Polish-to-German	0.69 (0.25)	0.31 (0.25)
German-to-Spanish	0.42 (0.20)	0.58 (0.20)
Spanish-to-German	0.59 (0.22)	0.41 (0.22)
Novel	**0.86 (0.20)**	**0.14 (0.20)**
German-to-Polish	0.83 (0.18)	0.17 (0.18)
Polish-to-German	0.90 (0.18)	0.10 (0.18)
German-to-Spanish	0.78 (0.27)	0.22 (0.27)
Spanish-to-German	0.92 (0.13)	0.08 (0.13)

4.1 How metaphorical mappings were *preserved* in translations

Why were most of the metaphorical mappings preserved in translation? Previous research on metaphorical motion identified robust crosslinguistic similarities in how speakers of typologically diverse languages use metaphorical mappings with motion as source domain to structure abstract concepts. These commonalities have been attributed to the universal nature of the source domain (Lewandowski and Özçalışkan 2025; cf. Gibbs et al. 2004): spatial movement is a universal aspect of our experience, largely unaffected by language or culture. As humans, we share similar bodies, which enable comparable types of movement as we interact with the world around us. Given this, the conceptual similarities in metaphorical motion across languages may have facilitated the retention of source-language patterns in translation, leading to higher incidence of expressions that preserved, rather than lost, the original metaphorical mappings.

At the same time, however, preserving the metaphorical mappings did not necessarily imply retaining the specific metaphorical expressions at the lexical level. A common difference between original and translated texts was the expression of manner information, particularly in inter-typological shifts between German and Spanish. For example, when transitioning from Spanish (a V-language) to German (an S-language), translators often added new manner dimensions that were not present in the original text (e.g., Spanish original *Entonces Alba entró en su pesadilla* … 'Then, Alba entered her nightmare' [Allende 1982: 242] vs. German translation *Da betrat Alba den Alptraum* … 'Then, Alba stepped into her nightmare' [p. 414]). In contrast, the opposite pattern (i.e., omission of the original manner information) was evident in the reverse type of shift (e.g., German original … *in meine Geschichte das Wort 'Innehalten' einfließen lassen* … '… to let the word "pausing" flow into my history' [Handke 1997: 140] vs. Spanish translation … *que en mi historia entre la palabra 'detenerse'* … '… that the word "pausing" enters my history …' [p. 216]). Given that the typological structure of S-languages such as German facilitates the encoding of manner in a compact fashion in the main verb, while manner is not as easily codable in V-languages such as Spanish, which requires the inclusion of an adjunct phrase (Slobin 1997; Talmy 2000), these differences between original and translated texts are likely the outcome of translators' adjustments to the patterns of the

target language. These results extend previous research that highlighted similar variability in the expression of manner in translations (e.g., Alonso 2022; Cifuentes-Férez 2014; Lewandowski and Mateu 2016; Molés-Cases 2020).

Another common difference between original and translated expressions involved the replacement of a conventionalized metaphor from the source language with its functional equivalent in the target language, preserving the same metaphorical mapping but using different lexical specifications (e.g., German original … *will mir jemand die Schuld in die Schuhe schieben* … '… someone wants to push the blame in my shoes …' [Gier 2015: 250] vs. Polish translation … *ktoś chce zwalić na mnie winę* … '… someone wants to knock down the blame on me …' [p. 206]; Polish original *Nic nie przychodziło mu do głowy*. 'Nothing walked into his head.' [Stasiuk 1999: 33] vs. German translation *Ihm fiel nichts ein*. 'Nothing fell into him.' [p. 62]; German original … *sei* … *in Schwierigkeiten geraten* … '… he … got in difficulties' [Kehlmann 2005: 244] vs. Spanish translation … *se había metido en un aprieto* … 'he put himself in a predicament' [p. 183]). Conventionalized metaphors, firmly rooted in the linguistic repertoire of the source language, often lack direct equivalents in the target language (cf. Monti 2009). Because a word-for-word translation in such instances would introduce an unfamiliar (i.e., novel) metaphor into the target text, potentially altering the meaning of the original expression, translators typically resort to established target-language correspondences instead (cf. Toury 2012; van den Broeck 1981). These lexical substitutions may, therefore, reflect translators' efforts to align with target-language conventions, while conveying the intended original message.

One intriguing question our study raises is whether the alignment with the metaphorical mappings of the source language extends to other types of discourse production. The primary role of translation is to ensure effective cross-cultural communication rather than achieve perfect fidelity to the source text (e.g., Pym 2025). As such, translation strategies vary by genre, which in turn may influence metaphor retention depending on the specific communicative goal (Schäffner 2016). The literary genre, which we focused on in our study, presents unique challenges due to the central role of metaphor in shaping the reader's subjective engagement with the text (Steen 1994). This in turn might have made translators particularly attentive to preserving the original conceptual metaphors. In contrast, in nonliterary genres such as scientific writing or journalism, which tend to emphasize factuality, translators might favor nonmetaphorical equivalents more often to achieve greater precision and accessibility. Future research expanding our analysis to a broader range of production contexts could provide further insights into how the retention of conceptual metaphors varies across different communicative settings.

4.2 How metaphorical mappings were *lost* in translations

Why were some of the metaphorical mappings lost in translation? One key factor is language type: inter-typological transitions (i.e., German vs. Spanish) resulted in higher losses (106 out of 300 instances) than intra-typological ones (i.e., German vs. Polish; 76 out of 300 instances). Interestingly, while the extent of losses for novel metaphors, idioms, and collocations was similar across both types of transitions (inter-typological: 45 instances; intra-typological: 42 instances), substantial disparities emerged for motion verbs with lexicalized figurative meanings. In these cases, loss rates in inter-typological contexts nearly doubled those observed for intra-typological ones (61 vs. 34 losses). These disparities primarily stemmed from the translation of verb-satellite combinations (75 instances) typical of S-languages (i.e., German and Polish, in our sample) – specifically from German to Spanish at the inter-typological level, and between German and Polish at the intra-typological level. When translating such verb-satellite combinations inter-typologically, translators commonly resorted to nonmetaphorical paraphrases in the target language (e.g., German … *die Schätzungen gingen auseinander* … '… the estimates diverged [lit. walked apart]…' [Kehlmann 2005: 199] translated to Spanish as … *las estimaciones diferían* … '… the estimates differed …' [p. 165]; German … *kaum dass dieser sein Anliegen vorgebracht hatte* … '… hardly had he presented [lit. brought forward] his concern …' [Sebald 1995: 141] translated to Spanish as … *apenas hubo formulado su deseo* … '… hardly had he formulated his wish …' [p. 86]). In contrast, intra-typological transitions showed a greater tendency to preserve the metaphorical mappings of the source language (e.g., German … *die ganze Klage vorzutragen* … '… to recite [lit. carry forward] the entire complaint …' [Grass 1979: 21] translated to Polish as … *aby przedstawił całą elegię* … '… so that he might present [lit. put forward] the entire elegy …' [p. 26]; Polish … *obchodzi to święto inaczej* … '… he celebrates [lit. walks around] this holiday differently

…' [Tokarczuk 2014: 144] translated to German as … *begeht er diesen Tag auf andere Art* … '… he celebrates [lit. walks over] this day in a different way … ' [p. 195]). S-languages, by allowing a wide range of verb-satellite combinations, are particularly productive in generating a rich tapestry of lexicalized figurative meanings grounded in motion as their source domain. V-languages, on the other hand, with path restricted to a limited set of motion verbs, appear less equipped to yield an equally extensive range of lexicalized senses. These structural differences make it more challenging to replicate the original metaphorical structure in inter-typological shifts from German to Spanish, leading to more significant losses. In contrast, the shared typological framework of German and Polish facilitates a higher degree of preservation of the original mappings, underpinned by analogous morphological compounds. Thus, typological distance between source and target language emerges as a highly relevant factor influencing the preservation of metaphorical mappings in translation.

Another important factor is degree of novelty: conventional metaphoric expressions displayed a higher proportion of losses (155 out of 365 instances) than novel ones (35 out of 235 instances). For conventional metaphors, these losses occurred across all types of expressions including the above-referenced lexicalized verb meanings, collocations (e.g., German original … *Verletzung, die sich der Offizier … zugezogen hat* … '… injury that the officer … has sustained [lit. pulled toward himself] …' [Geiger 2011: 37] vs. Spanish translation … *una pequeña herida que el agente se hizo* … '… a small wound that the officer caused [lit. made] to himself …' [p. 45]; Spanish original … *antes de lanzar la contraofensiva* … '… before launching the counteroffensive …' [Puig 1976: 170] vs. German translation … *ehe die Gegenoffensive gestartet wird* … '… before the counteroffensive is initiated …' [p. 260]), and idiomatic and semi-idiomatic expressions (e.g., Spanish original … *lo sacan de quicio los cánticos del público juvenil* … '… the chants of the young audience drive him crazy [lit. take him out of his hinge] … [Aramburu 2016: 307] ' vs. German translation … *und den der Kindergesang eher wahnsinnig macht* … '… and the children's singing drives [lit. makes] him rather crazy …' [p. 560]; German original … *sind … der Sache … auf den Grund gegangen* … '… they got [lit. walked] to the bottom of the matter … ' [Wolf 2002: 94] vs. Polish translation … *załatwili sprawę gruntownie* … '… they dealt with the matter thoroughly …' [p. 96]). In contrast, novel metaphors were more consistently retained (e.g., German original … *ein mächtiger Springquell, dessen Strahl auf und nieder tanzte* … '… a powerful fountain, whose jet danced up and down …' [Ende 1979: 211] translated to Spanish as … *una enorme fuente cuyo chorro bailaba subiendo y bajando* … '… a huge fountain whose stream danced rising and falling … ' [p. 423]; Polish original … *z komina wypełzał … biały dym* '… white smoke was creeping out of the chimney' [Sapkowski 2004: 76] translated to German as … *aus dem Kamin kroch weißer Rauch* '… white smoke was creeping out of the chimney' [p. 161]). As mentioned earlier, it is common for conventional metaphors – which are an integral part of standardized language use – not to have exact counterparts in the target language. This, in turn, forces translators to employ functional equivalents instead. While such equivalents may preserve the source-language mappings, as evidenced in the preceding section, they often unavoidably result in a loss of the original metaphorical structure, as shown in the examples above. Novel metaphors, on the other hand, being less constrained by the established norms of a language, offer greater flexibility, making it easier for translators to preserve them in the target text. In addition, conventional metaphors might be less pivotal for the literary genre than novel ones, given that the latter carry greater imaginative resonance (Steen 1994; Toury 2012) – which further increases their susceptibility to loss. Thus, degree of novelty proves to be another crucial factor affecting the preservation of metaphorical mappings in translation.

Furthermore, translation norms might also have played a significant role in how metaphorical mappings were handled during the translation process. These norms prioritize the overall metaphorical effect of the text, rather than the exact reproduction of each individual metaphor (Toury 2012). As a result, translators may not replicate every metaphor in its original location but may instead introduce new ones elsewhere in the text to maintain the overall metaphorical texture. Therefore, the loss of certain metaphorical mappings in our study may also be attributable to this common approach to literary translation.

Additionally, translators actively create meaning through their own subjective choices (e.g., Kinnunen and Koskinen 2010). While these choices are influenced by typological constraints and translation norms, they also reflect independent personal judgment and creative preferences, ultimately shaping the final representation of

the source text in the target language. As such, the patterns observed in our study also embody the translators' agency in constructing the metaphorical landscape of the target text.

One important question is whether the loss of conceptual metaphors affects readers' interpretation of original versus translated texts. Although we did not explore this question directly, earlier experimental studies suggest this possibility. For example, Rojo et al. (2014) showed that metaphorical descriptions of emotional states in Spanish (e.g., *explotar de ira* 'lit. explode of anger') elicited higher heart rates compared to their literal paraphrases (e.g., *enfadarse* 'get angry'), suggesting that metaphorical language might increase emotional processing. Similarly, Citron and Goldberg (2014) found that native German speakers who read metaphorical sentences involving the source domain of taste (e.g., *She looked at him sweetly*) displayed greater activation in brain regions associated with emotional processing than those who read nonmetaphorical sentences (e.g., *She looked at him kindly*). Future studies that focus on the literary genre are thus needed to further determine the extent to which the loss of metaphorical mappings in translations might influence readers' cognitive engagement with the target text.

5 Conclusions

Earlier crosslinguistic studies on metaphorical motion in translation have predominantly focused on the lexicalization of the source domain within the literary genre, showing close attunement to the patterns of the target language. This study takes these findings one step further by examining a previously unexplored aspect: metaphorical mappings. While our results revealed a dominant trend of alignment with the metaphorical mappings of the source language, some mappings were lost, with inter-typological shifts and conventionalized expressions significantly increasing the likelihood of such losses. In conclusion, our findings highlight typological distance between source and target languages, as well as the degree of novelty, as key factors influencing the preservation of metaphorical mappings in translation.

Data availability: The data extracted from the novels, which serve as the foundation of the findings presented in this study, can be accessed through the OSF repository link https://osf.io/d365c/?view_only=40db26a87ac3494c8df23037afb67199.

Appendix A: Original texts

	German
1970s	Böll, Heinrich. 1974. *Die verlorene Ehre der Katharina Blum.*
	Ende, Michael. 1979. *Die unendliche Geschichte.*
	Grass, Günter. 1979. *Das Treffen in Telgte.*
1980s	Jelinek, Elfriede. 1983. *Die Klavierspielerin.*
	Dürrenmatt, Friedrich. 1985. *Justiz.*
	Süskind, Patrick. 1985. *Das Parfüm.*
1990s	Schlink, Bernhard. 1995. *Der Vorleser.*
	Sebald, Winfried. 1995. *Die Ringe des Saturn. Eine englische Wallfahrt.*
	Handke, Peter. 1997. *In einer dunklen Nacht ging ich aus meinem stillen Haus.*
2000s	Wolf, Christa. 2002. *Leibhaftig.*
	Kehlmann, Daniel. 2005. *Die Vermessung der Welt.*
	Franck, Julia. 2007. *Die Mittagsfrau.*
2010s	Geiger, Arno. 2011. *Der alte König in seinem Exil.*
	Funke, Cornelia. 2012. *Reckless. Lebendige Schatten.*
	Gier, Kerstin. 2015. *Silber. Das dritte Buch der Träume.*

(continued)

	Polish
1970s	Andrzejewski, Henryk. 1975. *Teraz na ciebie zagłada.*
	Konwicki, Tadeusz. 1979. *Mała Apokalipsa.*
	Krall, Hanna. 1979. *Zdążyć przed Panem Bogiem.*
1980s	Wojdowski, Bogdan. 1981. *Chleb rzucony umarłym.*
	Szczypiorski, Andrzej. 1986. *Początek.*
	Huelle, Paweł. 1987. *Weiser Dawidek.*
1990s	Pilch, Jerzy. 1995. *Inne rozkosze.*
	Tryzna, Tomek. 1995. *Panna Nikt.*
	Stasiuk, Andrzej. 1999. *Dziewięć.*
2000s	Sapkowski, Andrzej. 2004. *Boży bojownicy.*
	Bart, Andrzej. 2008. *Fabryka muchołapek.*
	Bator, Joanna. 2009. *Piaskowa góra.*
2010s	Miłoszewski. Zygmunt. 2011. *Ziarno prawdy.*
	Tokarczuk, Olga. 2014. *Księgi Jakubowe.*
	Masłowska, Dorota. 2018. *Inni ludzie.*
	Spanish
1970s	Marsé, Juan. 1972. *Si te dicen que caí.*
	Fuentes, Carlos. 1975. *Terra nostra.*
	Puig, Manuel. 1976. *El beso de la mujer araña.*
1980s	Allende, Isabel. 1982. *La casa de los espíritus.*
	Mendoza, Eduardo. 1986. *La ciudad de los prodigios.*
	Esquivel, Laura. 1989. *Como agua para chocolate.*
1990s	Delibes, Miguel. 1993. *Señora de rojo sobre fondo gris.*
	Pérez-Reverte, Arturo. 1993. *El club Dumas.*
	Serrano, Marcela. 1993. *Para que no me olvides.*
2000s	Ruiz Zafón, Carlos. 2001. *La sombra del viento.*
	Restrepo, Laura. 2004. *Delirio.*
	Falcones, Ildefonso. 2006. *La catedral del mar.*
2010s	Schweblin, Samanta. 2014. *Distancia de rescate.*
	Belli, Gioconda. 2014. *El intenso calor de la Luna.*
	Aramburu, Fernando. 2016. *Patria.*

Appendix B: Translated texts

	German-to-Spanish
1970s	Böll, Heinrich. 1974. *El honor perdido de Katharina Blum* (Helene Katendhal, trans.).
	Ende, Michael. 1979. *La historia interminable* (Miguel Sáenz, trans.).
	Grass, Günter. 1979. *Encuentro en Telgte* (Genoveva Dieterich, trans.).
1980s	Jelinek, Elfriede. 1983. *La pianista* (Pablo Diener, trans.).
	Dürrenmatt, Friedrich. 1985. *Justicia* (Juan José del Solar, trans.).
	Süskind, Patrick. 1985. *El perfume* (Pilar Giralt Gorina, trans.).
1990s	Schlink, Bernhard. 1995. *El lector* (Joan Parra Conteras, trans.).
	Sebald, Winfried. 1995. *Los anillos de Saturno* (Carmen Gómez and Georg Pichler, trans.).
	Handke, Peter. 1997. *En una noche oscura salí de mi casa sosegada* (Eustaquio Barjau, trans.).
2000s	Wolf, Christa. 2002. *En carne propia* (Raúl Sánchez Cedillo, trans.).
	Kehlmann, Daniel. 2005. *La medición del mundo* (Rosa Pilar Blanco, trans.).
	Franck, Julia. 2007. *La mujer del mediodía* (Belén Santana López, trans.).
2010s	Geiger, Arno. 2011. *El viejo rey en el exilio* (Alfonso López, trans.).
	Funke, Cornelia. 2012. *Reckless. Sombras vivas* (María Falcón Quintana, trans.).
	Gier, Kerstin. 2015. *Silber. El tercer libro de los sueños* (Irene Saslavsky, trans.).

(continued)

	Spanish-to-German
1970s	Marsé, Juan. 1972. *Wenn man Dir sagt, ich sei gefallen* (Annette Uppenkampf and Hans J. Hartstein, trans.).
	Fuentes, Carlos. 1975. *Terra nostra* (Maria Bamberg, trans.).
	Puig, Manuel. 1976. *Der Kuss der Spinnenfrau* (Anneliese Botond, trans.).
1980s	Allende, Isabel. 1982. *Das Geisterhaus* (Anneliese Botond, trans.).
	Mendoza, Eduardo. 1986. *Die Stadt der Wunder* (Peter Schwaar, trans.).
	Esquivel, Laura. 1989. *Bittersüße Schokolade* (Petra Strien, trans.).
1990s	Delibes, Miguel. 1993. *Frau in Rot auf grauem Grund* (Michael Hofmann, trans.).
	Pérez-Reverte, Arturo. 1993. *Der Club Dumas* (Claudia Schmitt, trans.).
	Serrano, Marcela. 1993. *Damit du mich nicht vergisst* (Gertraud Strohm-Katzer, trans.).
2000s	Ruiz Zafón, Carlos. 2001. *Der Schatten des Windes* (Peter Schwaar, trans.).
	Restrepo, Laura. 2004. *Land der Geister* (Elisabeth Müller, trans.).
	Falcones, Ildefonso. 2006. *Die Kathedrale des Meeres* (Lisa Grüneisen, trans.).
2010s	Schweblin, Samanta. 2014. Das Gift (Marianne Gareis, trans.).
	Belli, Gioconda. 2014. Mondhitze (Lutz Kliche, trans.).
	Aramburu, Fernando. 2016. Patria (Willi Zurbrüggen, trans.).
	German-to-Polish
1970s	Böll, Heinrich. 1974. *Utracona cześć Katarzyny Blum* (Teresa Jętkiewicz, trans.).
	Ende, Michael. 1979. *Niekończąca się historia* (Ryszard Wojnakowski, trans.).
	Grass, Günter. 1979. *Spotkanie w Telgte* (Sławomir Błaut, trans.).
1980s	Jelinek, Elfriede. 1983. *Pianistka* (Ryszard Turczyn, trans.).
	Dürrenmatt, Friedrich. 1985. *Organa sprawiedliwości* (Małgorzata Łukasiewicz, trans.).
	Süskind, Patrick. 1985. *Pachnidło* (Małgorzata Łukasiewicz, trans.).
1990s	Schlink, Bernhard. 1995. *Lektor* (Maria Podlasek-Ziegler, trans.).
	Sebald, Winfried. 1995. *Pierścienie Saturna* (Małgorzata Łukasiewicz, trans.).
	Handke, Peter. 1997. *Pewnej ciemnej nocy wyszedłem z mojego cichego domu* (Elżbieta Ptaszyńska-Sadowska, trans.).
2000s	Wolf, Christa. 2002. *Aż do trzewi* (Sławomir Błaut, trans.).
	Kehlmann, Daniel. 2005. *Rachuba świata* (Jakub Ekier, trans.).
	Franck, Julia. 2007. *Południca* (Krzysztof Jachimczak, trans.).
2010s	Geiger, Arno. 2011. *Stary król na wygnaniu* (Karolina Niedenthal, trans.).
	Funke, Cornelia. 2012. *Reckless Nieustraszony* (Agnieszka Hofmann, trans.).
	Gier, Kerstin. 2015. *Silver. Trzecia księga snów* (Agnieszka Hofmann, trans.).
	Polish-to-German
1970s	Andrzejewski, Henryk. 1975. *Jetzt kommt über dich das Ende* (Peter Lachmann, trans.)
	Konwicki, Tadeusz. 1979. *Die polnische Apokalypse* (Gabriele Hanussek, trans.).
	Krall, Hanna. 1979. *Dem Herrgott zuvorkommen* (Hubert Schumann, trans.).
1980s	Wojdowski, Bogdan. 1981. *Brot für die Toten* (Henryk Bereska, trans.).
	Szczypiorski, Andrzej. 1986. *Die schöne Frau Seidenman* (Klaus Staemmler, trans.)
	Huelle, Paweł. 1987. *Weiser Dawidek* (Renate Schmidgall, trans.).
1990s	Pilch, Jerzy. 1995. *Andere Lüste* (Albrecht Lempp, trans.).
	Tryzna, Tomek. 1995. *Fräulein Niemand* (Agnieszka Grzybkowska, trans.)
	Stasiuk, Andrzej. 1999. *Neun* (Renate Schmidgall, trans.).
2000s	Sapkowski, Andrzej. 2004. *Gottesstreiter* (Barbara Samborska, trans.).
	Bart, Andrzej. 2008. *Die Fliegenfängerfabrik* (Albrecht Lempp, trans.).
	Bator, Joanna. 2009. *Sandberg* (Esther Kinsky, trans.).
2010s	Miłoszewski. Zygmunt. 2011. *Ein Körnchen Wahrheit* (Barbara Samborska, trans.).
	Tokarczuk, Olga. 2014. *Die Jakbosbücher* (Lisa Palmes and Lothar Quinkenstein, trans.)
	Masłowska, Dorota. 2018. *Andere Leute* (Olaf Kühl, trans.).

References

Alonso, Rosa. 2022. Thinking-for-translating in comics: A case-study of Asterix. *Perspectives* 32(1). 100–118.

Bisiada, Mario. 2024. Investigating metaphor and representation with corpora. In Frazer Heritage & Charlotte Taylor (eds.), *Analysing representation*, 134–149. London: Routledge.

Boeynaems, Amber, Christian Burgers, Elly Konijn & Gerard Steen. 2017. The impact of conventional and novel metaphors in news on issue viewpoint. *International Journal of Communication* 11. 2861–2879.

Cifuentes-Férez, Paula. 2014. A closer look at paths of visions, manner of vision and their translation from English into Spanish. *Languages in Contrast* 14(2). 214–250.

Citron, Francesca & Adele Goldberg. 2014. Metaphorical sentences are more emotionally engaging than their literal counterparts. *Journal of Cognitive Neuroscience* 26. 2585–2595.

Gibbs, Raymond, Paula Costa Lima & Edson Francozo. 2004. Metaphor is grounded in embodied experience. *Journal of Pragmatics* 36. 1189–1210.

Kinnunen, Tuija & Kaisa Koskinen (eds.). 2010. *Translators' agency*. Tampere: Tampere University Press.

Kövecses, Zoltan. 2005. *Metaphor in culture: Universality and variation*. Cambridge: Cambridge University Press.

Lakoff, George & Mark Johnson. 1980. *Metaphors we live by*. Chicago: University of Chicago Press.

Lewandowski, Wojciech. 2018. A typological approach to the encoding of motion events. In María Ángeles Gómez González & Lachlam Mackenzie (eds.), *The construction of discourse as interaction*, 45–74. Amsterdam & Philadelphia: John Benjamins.

Lewandowski, Wojciech. 2021. Variable motion event encoding within languages and language types: A usage-based perspective. *Language & Cognition* 13(1). 34–65.

Lewandowski, Wojciech & Jaume Mateu. 2016. Thinking for translating and intra-typological variation in satellite-framed languages. *Review of Cognitive Linguistics* 14. 185–208.

Lewandowski, Wojciech & Şeyda Özçalışkan. 2023. Running across the mind or across the park: Does speech about physical and metaphorical motion go hand in hand? *Cognitive Linguistics* 34(3–4). 411–444.

Lewandowski, Wojciech & Şeyda Özçalışkan. 2024. Translating motion events across physical and metaphorical spaces in structurally similar *versus* structurally different languages. *Metaphor and Symbol* 39(1). 10–39.

Lewandowski, Wojciech & Şeyda Özçalışkan. 2025. Do metaphors we *move by* follow the same patterns across structurally different languages? Unpublished manuscript.

McHugh, Mary. 2013. The chi-square test of independence. *Biochemical Medicine* 23(2). 143–149.

Molés-Cases, Teresa. 2020. On the translation of Manner-of-motion in comics: Evidence from an inter- and intratypological corpus-based study. *Languages in Contrast* 20(1). 141–165.

Monti, Enrico. 2009. Translating the metaphors we live by. *European Journal of English Studies* 13(2). 207–221.

Özçalışkan, Şeyda. 2003. Metaphorical motion in crosslinguistic perspective: A comparison of English and Turkish. *Metaphor and Symbol* 18. 189–229.

Pym, Anthony. 2025. *Risk management in translation*. Cambridge: Cambridge University Press.

Rojo, Ana, Marina Ramos & Javier Valenzuela. 2014. The emotional impact of translations: A heart rate study. *Journal of Pragmatics* 71. 31–44.

Schäffner, Christina. 2016. Metaphor in translation. In Elena Semino & Zsófia Demjén (eds.), *The Routledge handbook of metaphor and language*, 247–262. New York: Routledge.

Slobin, Dan. 1997. Mind, code, and text. In Joan Bybee, Sandra Thompson & John Haiman (eds.), *Essays on language function and language type*, 437–467. Amsterdam: John Benjamins.

Slobin, Dan. 2004. The many ways to search for a frog: Linguistic typology and the expression of motion events. In Sven Strömqvist & Ludp Verhoeven (eds.), *Relating events narrative: Typological and contextual perspectives*, 219–257. Mahwah, NJ: Lawrence Erlbaum Associates.

Slobin, Dan & Nini Hoiting. 1994. Reference to movement in spoken and signed languages: Typological considerations. *Proceedings of the Annual Meeting of the Berkeley Linguistic Society* 20. 487–505.

Steen, Gerard. 1994. *Understanding metaphor in literature: An empirical approach*. London: Longman.

Steen, Gerard. 2016. Identifying metaphors in language. In Elena Semino & Zsófia Demjén (eds.), *The Routledge handbook of metaphor and language*, 13–27. New York: Routledge.

Talmy, Leonard. 2000. *Toward a cognitive semantics II: Typology and process in concept structuring*. Cambridge, MA: MIT Press.

Toury, Gideon. 2012. *Descriptive translation studies and beyond*. Amsterdam: John Benjamins.

van den Broeck, Raymond. 1981. The limits of translatability exemplified by metaphor translation. *Poetics Today* 2(4). 73–87.

Wilson, Nicole. 2005. *Conceptualizing motion events and metaphorical motion: Evidence from Spanish/English bilinguals*. Santa Cruz: University of California, Santa Cruz PhD dissertation.